OPERATING MANUAL

SERVICE TOOL for
VRF System

UTY-ASGX   **Ver. 1.0**

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FUJITSU GENERAL LIMITED

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for
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Contents

1. Safety precautions

1-1   Safety precautions

- Before using Service Tool, read this "Safety precautions" thoroughly to ensure the correct operation.
- This section describes the important safety information to operate Service Tool.
- The meanings of "WARNING" and "CAUTION" are explained as follows.

⚠ **WARNING!**	This mark indicates the procedures, which might result in the death of or serious injury to the user or service personnel if improperly performed.
⚠ **CAUTION!**	This mark indicates the procedures, which might result in personal harm to the user or damage to property if improperly performed.

This manual is for service personnel authorized to use the Service Tool. Always keep this manual in an easily accessible place for use by authorized service personnel.

⚠ **WARNING!**
1. When using U10 USB Network Adaptor, follow the instructions given in the manual that comes with the product.

⚠ **CAUTION!**
Service Tool can control the air-conditioner system on a personal computer. Be careful not to turn off the power supply of the personal computer, or not to finish the application compulsorily during operation. Otherwise, Service Tool might malfunction. For personal computer used as Service Tool, refer to the instruction manual.

1-2   Precautions when using the Service Tool

2. Please read and fully understand the Operating Manual. Fujitsu General Limited is not responsible for improper use.
3. Fujitsu General Limited is not responsible if the settings in this software or data used for the controlling are deleted. We request that the customer take responsibility for the administration of the settings and control data.
4. If the personal computer operating this software stops, immediately restart the computer and restart this software. Also, if the unit equipment stops due to a power supply interruption, restart this software immediately as there is the potential for malfunctioning.
5. The master CD for this software and the hasp (hardware protection key) will not be reissued. Store the master CD in a safe place after installing.
6. For information about operating your personal computer, refer to the operating manual for the PC and the store that sold it.
7. Never start this software simultaneously with other software as this may cause malfunctioning.
8. When Service Tool program is running, do not set/adjust the time and date of the PC to prevent data becoming inconsistent.
9. Service Tool is tested to install and operate under new Windows environment.
10. When program executional environment of Windows is corrupted or abnormal, or other softwares that interfere with the operation of Service Tool is installed or running, Service Tool may not install or run properly. It is usually extremely difficult to detect such conditions, if it occurs.
11. Service Tool product is provided with softwares, drivers, components listed below.
12. If the same kind of softwares, drivers, components with different version is installed on the same PC, Service Tool may not install or run properly.
    1) .NET Framework
    2) Internet Information Services (IIS)
    3) Microsoft Data Access Components (MDAC)
    4) Microsoft SQL Server 2005 Express

Contents

2. Outline

2. Outline
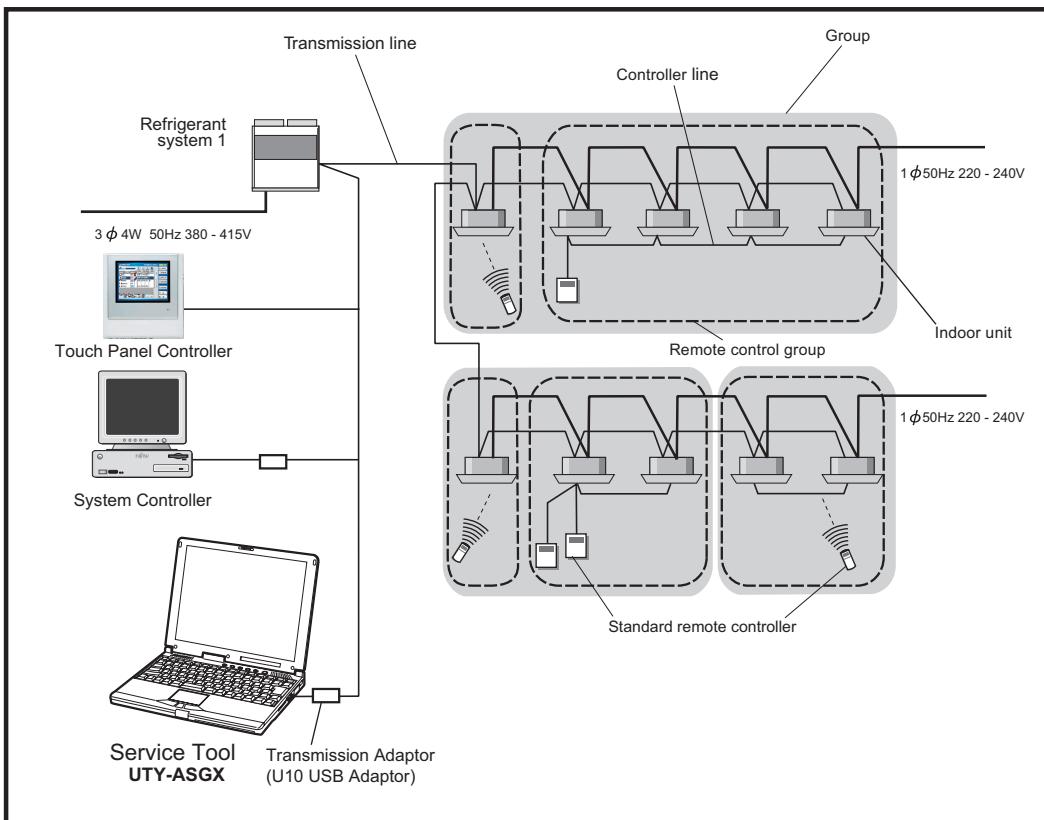
This operating manual explains the operating procedures for the software of Service Tools for the VRF control system.

The use of the system tools allows detailed data about the operating condition of each refrigerant system that has been installed in the building's system to be displayed in an easy-to-understand format.

Moreover, it also allows the latest data about pressure and temperature of indoor and outdoor units to be monitored. If there are fluctuations in the conditions, they can be displayed clearly in graph form on a PC screen.

When an error occurs in the transmission line or in an indoor or outdoor unit in the system, details about the error can be displayed on the error history screen for easy assessment of the conditions for fast troubleshooting and resolution.

■Software construction

The Service Tool software consists of the two functions `Data acquisition application` and `WEB application` .

The `Data acquisition application` is a program which is made resident when the Service Tool starts, and exchanges data with the VRF System transmission line. The received Unit data is saved to a Data base.

The `WEB application` is a program which converts the acquired Unit data to Table and Graph, and displays them to a browser (Internet Explorer). It also converts operations input from the User and passes them to the Data acquisition application through the Database.

2. Outline
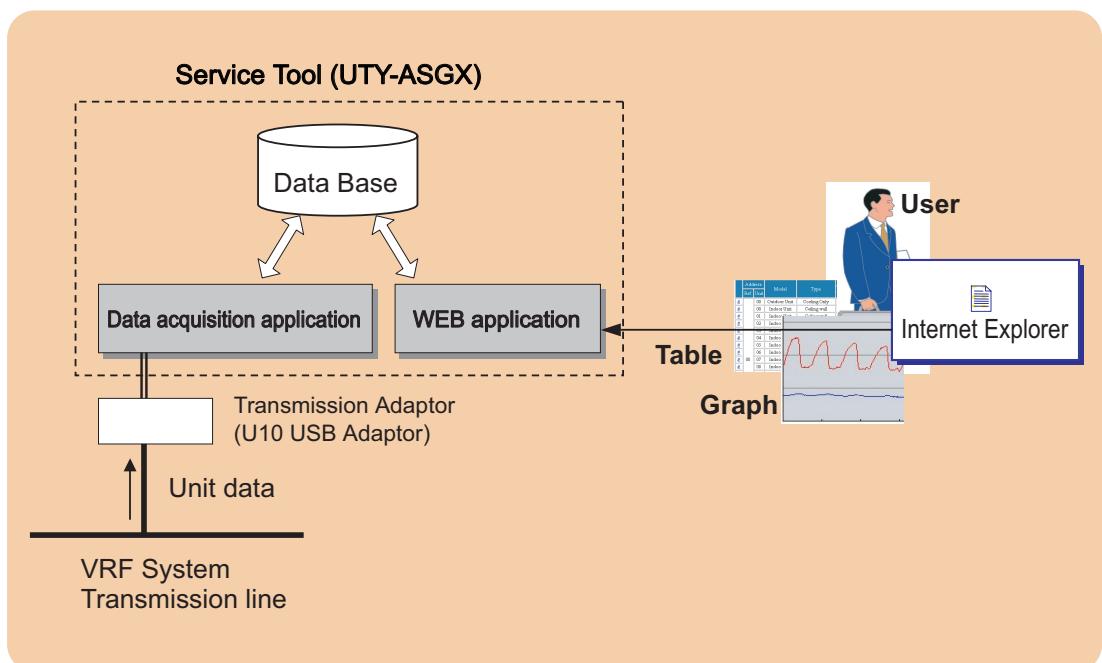
Contents

3. Data acquisition application starting flow

3. Data acquisition application starting flow

3-1 Screen transition

User Registration

Opening

Login
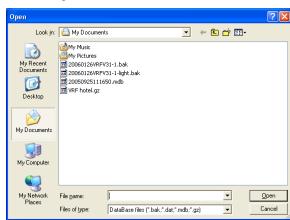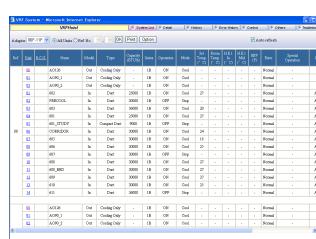
Menu
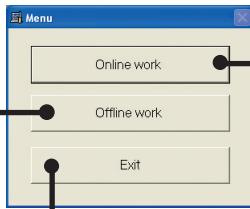
Online work

Offline work

Online site data selection

Import file selection

Exit

Cancel

Cancel

Program exit

System end

Name master database

System List Display
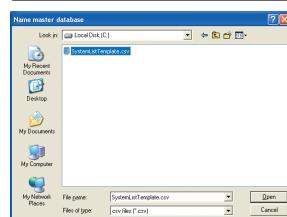
Scanning setting
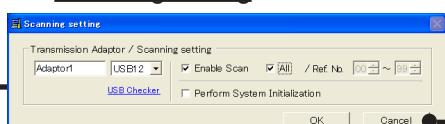
No scanning

Mismatched Unit List
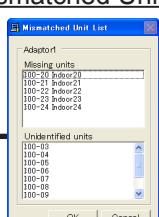
OK

Scanning

Cancel
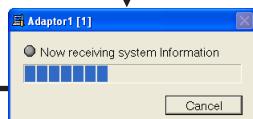
This section describes procedures for online work when "Online work" is selected from the Menu.

3-2-1 User registration (at initial starting)

To start the Data acquisition application, the user must be verified by user ID and password. If the user is not registered, user registration processing is started. User registration, change, and deletion can also be performed at 5-12 others screen (Setting).
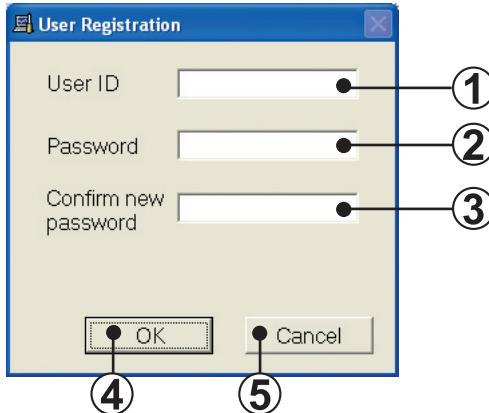
① User ID input field
Input the user ID. (Up to 20 alphanumeric characters) (*1)

② Password input field
Input the password. (Up to 20 alphanumeric characters) (*1)

③ Password confirmation input field
Input the password again for confirmation. (Up to 20 alphanumeric characters) (*2)

④ OK button
When the ⟨ OK ⟩ button is clicked, the inputted data is saved.

The opening screen is displayed, and operation advances to site data selection processing.

⑤ Cancel button
When the ⟨ Cancel ⟩ button is clicked, user registration stops and the Service Tool ends.

> **Note** *1   When the user ID and password input fields are not inputted, an error message is displayed.
>
> *2   When the password and password confirmation input contents are different, an error message is displayed.

3-2-2 Login

At other than initial starting (when a user is registered), a login screen is displayed.
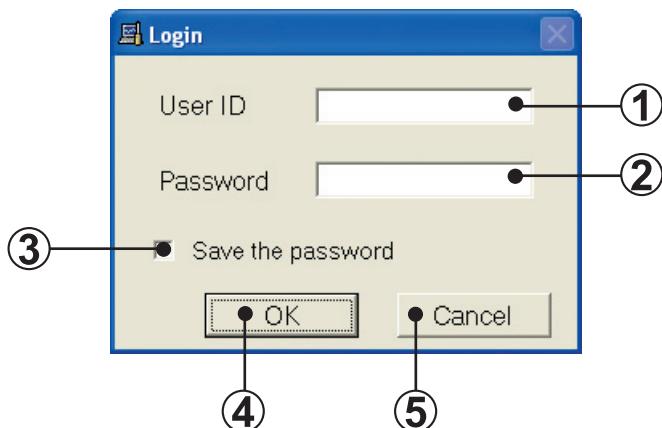
① User ID input field
   Input the ID of the user to be logged in. (Up to 20 alphanumeric characters) (*1)

② Password input field
   Input the password of the user to be logged in. (Up to 20 alphanumeric characters) (*1)

③ Save the password check box
   When the Save the password check box was checked, the same user ID and password are automatically displayed the next time the Service Tool is started.

   When the Save the password check box is not checked, the next time the Service Tool is started, the user ID and password are not displayed and must be manually inputted.

④ OK button
   When the | OK | button is clicked, the opening screen is displayed, and then operation advances to site data selection processing.

⑤ Cancel button
   When the | Cancel | button is clicked, the Service Tool ends.

Note *1 When the user ID and password input fields are not inputted, an error message is displayed.

3-2-3 Site data selection

New site can be registered and existing site can be selected / deleted on this screen. One Service Tool can manage multiple sites by registering the sites. When using the Service Tool the next time, rapid service without scanning can be performed by reading already registered site data.
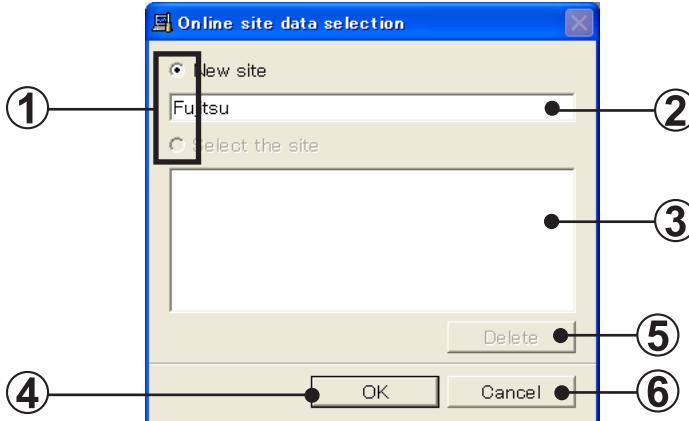
① Site data selection item
To register a new site, select "New site". To select an already registered site data, select "Select the site".

② New site name input field
When "New site" was selected at step ①, input the site name to be registered. (Up to 20 alphanumerics and spaces) (*1)

③ Site data selection display field
Displays the site names already registered.

When "Select the site" was selected at step ①, select the objective site name. (*2)

④ OK button
When the | OK | button is clicked, the name master database file selection screen is displayed.

⑤ Delete button
Can be used only when the objective site name was selected at step ③.

When the | Delete | button is clicked, all the data of the selected site is deleted.

Before deletion processing, a confirmation screen is displayed.
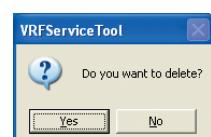
⑥ Cancel button
When the | Cancel | button is clicked, the program returns to the menu screen.

> **Note** ℹ
> • Up to 50 sites can be registered.
>   When the number of sites already registered exceeds 7, a scroll bar is displayed.
> *1   When the new site name input field is not inputted, an error message is displayed. Only alpha-numeric characters and spaces may be used for the site name.
> *2   When a site is not selected, an error message is displayed.

3. Data acquisition application starting flow

3-2-4 Name master database file selection screen

When scanning is performed by specifying a name master database file (.CSV), the specified file and the unit data actually scanned are collated, and the mismatched unit list of par. 3-2-6 can be performed.
Create the name master database file in advance and specify it from this screen.
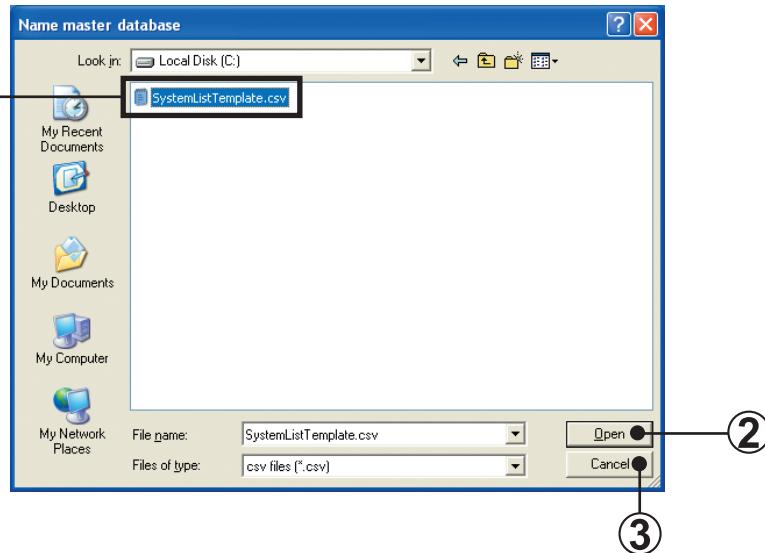
① **CSV file selection**
Select a name master database file (.CSV) containing the unit data. (*1)

② **Open button**
When the [Open] button is clicked, the scanning setting screen is displayed, and after the end of scanning, the differences between the name master database file and actual scanning result can be confirmed.

③ **Cancel button**
When scanning is performed without selecting a name master database file (.CSV), click the [Cancel] button. (The scanning setting screen is displayed.) In this case, the mismatched unit list screen is not displayed after scanning. (*2)

Note
*1   Files other than CSV files cannot be selected and displayed.

*2   When not selected, an error is not displayed even if there are units which cannot receive the address information normally.

■Name master database file (.CSV) preparation

The address, name, and other information which becomes the comparison source during scanning are saved beforehand in CSV format.

① Since the template [SystemListTemplate.xls] is
C:\Program Files\VRF System\ServiceTool\, open that file with Excel.
(*1) (*2)

② Since the following screen is displayed, set a value at each item.

Input contents

Adaptor No.		Enter the Adaptor No. (Range: 1 ~ 4)
Refrigerant		Enter the refrigerant system No. (Range: 0 ~ 99)
Unit	Input "Model" numerically	Enter the unit model. (Inner: 1, Outer: 2)
	Input Unit Address	Enter the unit No. (When "1" is inputted in "Model" field, input within the 0 ~ 3 range. When "2" is inputted in "Model" field, input within the 0 ~ 63 range.)
Name		Enter a name which allows easy classification of units. When a name is entered in this field, it is displayed on the Service Tool. Entry is not always necessary. When nothing is entered, the name is displayed as a blank. Only alpha-numeric characters and spaces may be used for the unit name.
Model Name		Enter a correct model name for each unit, using alphanumeric characters, "-" and "#". If the model name is unknown, keep the cell blank.

③ Select "Microsoft® Excel workbook (*.CSV) at Save as type.
Confirm that the file name extension is [.CSV] and then click the 🖬 Save button. (*3)

Save As

| Save in: | vrf |

SystemListTemplate.csv

My Recent Documents
Desktop
My Documents
My Computer
My Network Places

File name: SystemListTemplate.csv

Save as type: CSV (Comma delimited) (*.csv)

Tools

Save ●   Cancel

③
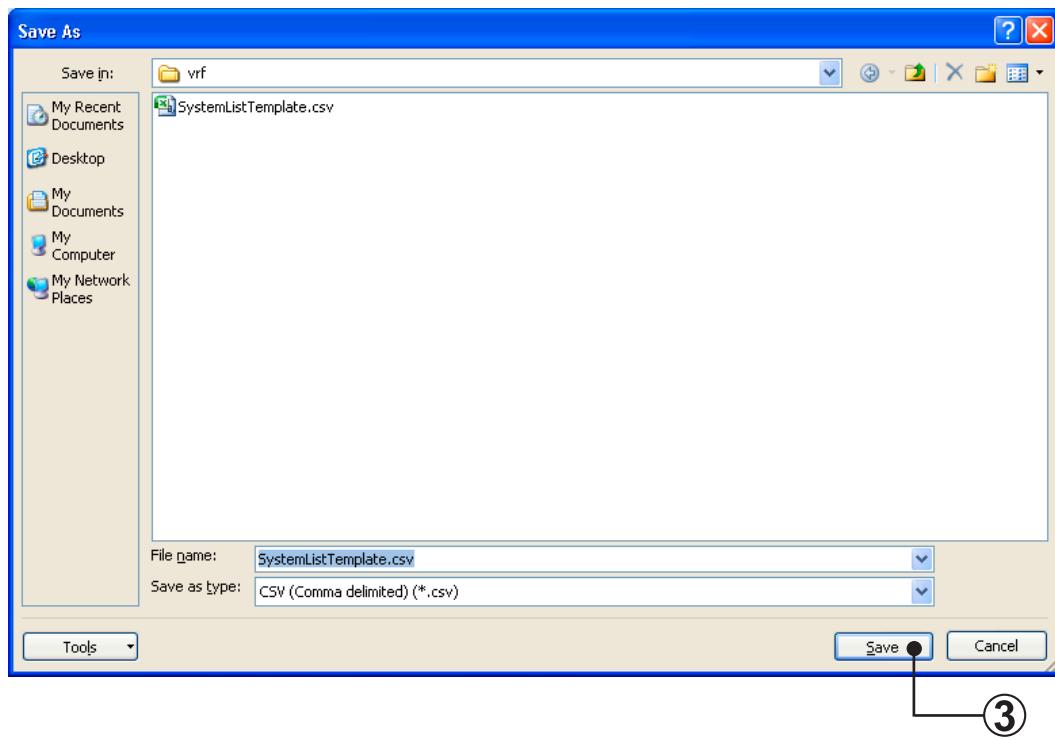
Note
ℹ️

*1 This template is created by spreadsheet program Excel.
Excel must be purchased separately.

*2 [SystemListTemplate.xls] is in the folder specified when installing the Service Tool. When an address other than the default installation address was specified, check that folder.

3 Since a CSV file is not created in formats other than "Microsoft® Excel workbook (.CSV)" at Save as type, it cannot be used at the name master database file selection screen.

3-2-5 Scanning

■**Scanning setting screen**

The air conditioner indoor units and outdoor units are connected by a transmission bus line and each have unique address information. Scanning collects this information.
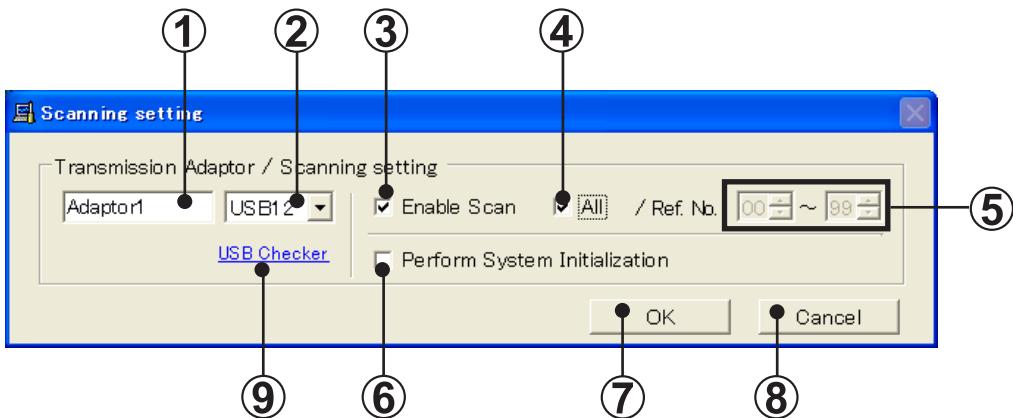
① Transmission adaptor entry field
The name of the transmission adaptor displayed on the screen can be entered. The default is "Adaptor1". When unnecessary, it can remain as is. Only alpha-numeric characters and spaces may be used for the transmission adaptor name (up to 10 alphanumerics and spaces).

② USB port selection field
Select the USB port which connects the transmission adaptor.

③ Scan execution setting check
Check to execute scanning.

Do not check when using existing site data which is currently being read. (*2)

④ Ref. No. range (ALL) check
Check to scan all the refrigerant systems.

At this time, the range of refrigerant numbers to be scanned is automatically set to 00 ~ 99.

⑤ Ref. No. range input field
When ALL is not checked at step **④**, input the refrigerant system numbers to be scanned within the 00 ~ 99 range.

Input the start refrigerant system No. ~ end refrigerant system No. range.

⑥ Perform System Initialization check
Can be used only when **③** is checked.

Check when you want to acquire more detailed information by scanning. (*1)

When checked, a confirmation screen is displayed. When all the units in the VRF System may be temporarily stopped, click the [OK] button.

When the [Cancel] button was clicked, the check mark is removed.

⑦ OK button
• When "Enable Scan" checked

When the [OK] button is clicked, scanning starts and scanning progress is displayed on the scanning progress screen.

Before scanning sta rts, whether or not scanning is to be performed is displayed on a confirmation screen.

When re-scanning, dialog box will appear after selecting the start of scan, confirming whether the existing indoor/outdoor units data (operation data, etc.) may be deleted.

Yes … delete the data after scanning, No … Keep the data,

OK button

* When performing scanning selecting "No" and number of units before and after scanning mismatches, following symptom may be encountered. Therefore, when selecting "No", be sure to have the correct number of units before and after scanning in mind.

• Transmission error may occur for the units that ceased to exist after scanning.

• Delay may occur for collecting data for each unit.

• When "Enable Scan" not checked

When the [OK] button is clicked, the system list screen is displayed without scanning. But when CSV formatted Name master file (3-2-4) has been already read, the corresponding Name of the unit will be updated.
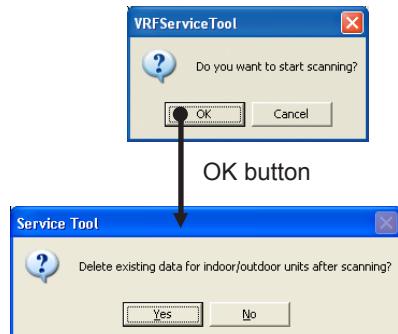
⑧ Cancel button
When the [Cancel] button is clicked, the online site selection screen is displayed.

⑨ USB Checker

This will be used to detect the actual USB port where transmission adaptor is inserted. Note that this will not be displayed if the driver for the U10 USB Network Adaptor is not installed. This will not be displayed for re-scanning.

<Detection Mechanism>

- Insert the transmission adaptor (U10 Network Interface) into the USB port. (This requires that software installation is already completed).

- When clicking the [USB Checker] in the scanning setting screen, following screen will be displayed.

- In this screen, click the [USB Adaptor] pull-down list box and select any USB port, then push the [Light] button.

- If the selected USB port is the actual porting connecting the USB adaptor, [SVC] in this screen and LED (SVC) of the transmission adaptor will flicker 4 times. (If the port differs, there will be no flicker).

- When the USB port No. is confirmed, close the screen and set the USB No. port in the above procedure **②** (USB port selection field) the USB port number where USB adaptor was detected.
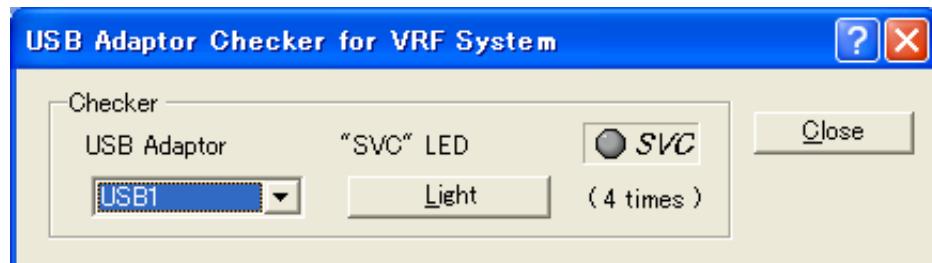
Note *1 • When Perform System Initialization checked

Normally, perform bus priority mode scanning. Full scanning which can receive detail data is performed. However, since each unit performs scan dedicated special operation, the units of the entire VRF System temporarily stop. To start scanning, check if the VRF System can be completely stopped, then execute scanning. Since the units remain stopped even when scanning is finished, a restart command must be sent from the control unit.

• When Perform System Initialization not checked

Use when scanning at sites at which the VRF System cannot be stopped. In this mode, scanning can be performed without affecting the operating status of the VRF System. However, since R.C group data cannot be received, it is not full scanning. Operation is not controlled in R.C. group units.

• When Single-Split Adaptor (UTR-YRDA) is connected within the VRF system, be sure to check the "Perform System Initialization" when performing scanning in order to recognized the equipment and display correct information.

*2 When not checked, since scanning is not performed, the scanning objective refrigerant system No. cannot be set.

■**Scanning progress screen**

Scanning is started and the scanning progress is displayed.
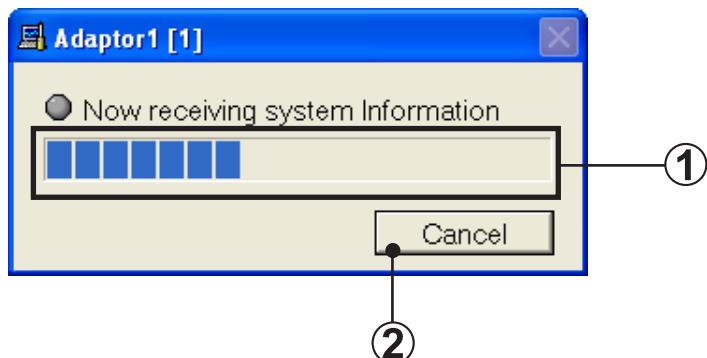
(1) Scanning progress display field
Displays the progress of scanning.

(2) Cancel button
When the Cancel button is clicked, scanning stops and the program returns to the scanning setting screen.

3-2-6 Mismatched unit list

When a name master database file is specified at par. 3-2-4, the unit data of the database file and the unit data actually scanned are collated. If there is a mismatch, that unit address is displayed. Therefore, correct the address setting on the board of the displayed unit and then re-scan. Repeat this work until a mismatched unit is not displayed.
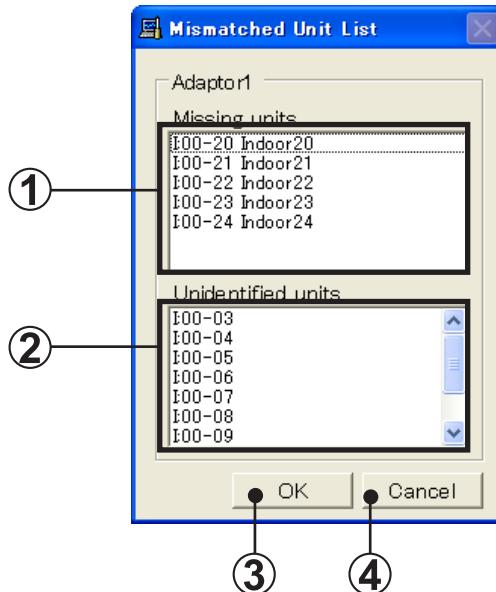
① Missing units address display field
This field displays the unit addresses and unit names whose unit data is defined by name master database, but the relevant data could not be acquired during scanning.

② Unidentified units address field
This field displays the unit address and unit model (indoor unit, outdoor unit) whose address was received during scanning, but whose unit data is not defined by name master database file.

③ OK button
When the OK button is clicked, the scanning acquisition data is stored and the system list screen (see par. 5-4) is displayed. The application icon is also displayed at the task tray.

If there is a unit mismatch, return to the scanning setting screen by clicking the Cancel button and repeat collation with the scanning acquired data until there are no mismatches. After confirming that there are not mismatches, click the OK button. If the OK button was clicked when there is a mismatch, the unit data acquired by scanning is displayed on the system list screen unchanged.

④ Cancel button
When the Cancel button is clicked, the program returns to the scan setting screen.

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3. Data acquisition application starting flow

This section describes procedures for offline work when "Offline work" is selected from the Menu.

3-3-1 Import file selection

By selecting the data files that has been saved in the past, you may monitor the various unit data on the screen off-line.
The data that may be displayed are those saved using;

- Service Tool Ver. 1.1 (UTR-YSTB) *1
- Service Tool Ver. 3.0 or later *2 (UTR-YSTC)
- Service Tool Ver. 1.0 (UTY-ASGX)
- Web Monitoring Tool Ver. 3.0 or later *2 (UTR-YMSA)
- Web Monitoring Tool Ver. 1.0 (UTY-AMGX)

For how to save the data, refer following chapter. For how to save data for other product type, refer corresponding manual.

     • 4-5 Exiting
     • 5-13 Others screen (Download)
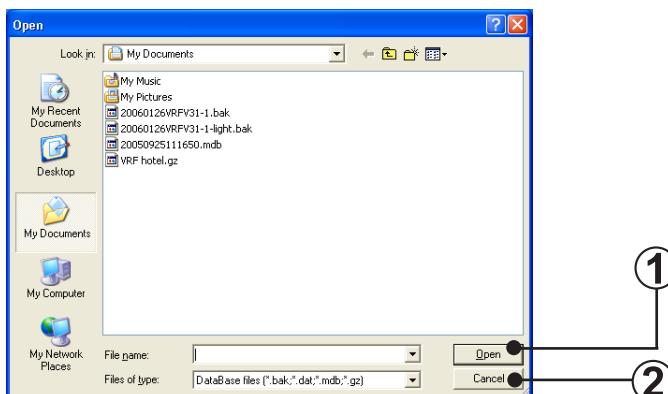
① Open button
When the [Open] button is clicked, the data of the selected Import file is fetched and the menu screen (see par. 5-2) is displayed.

② Cancel button
When the [Cancel] button is clicked, the program returns to the menu screen.

Note   *1   In order to cope with the incompatibility of data between Service Tool Ver. 1.1 (UTR-YSTB), following restriction will apply when displaying that version of data offline

- VRF Series data from Single-Split Adaptor (UTR-YRDA) will be displayed as outer unit: VRF1, inner unit: VRF1/1A.

- Data from VRF1B Series (operation data and series) will not be displayed correctly.

  *2   When the file created by Download screen is imported (compression file-extension:gz), the decompression file of the selection file is created.

Contents

4. Data acquisition application right click menu

4-1 Outline

4-1-1 Menu

A menu is displayed and various operations can be performed by right-clicking the 🖥 application icon on the task tray.
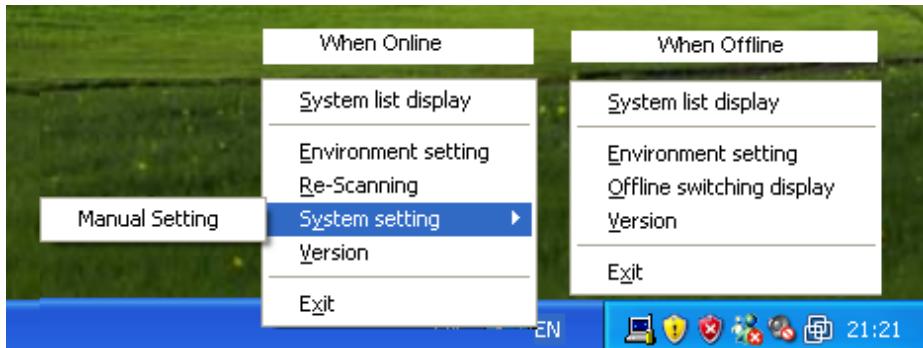
System list display	System list screen is displayed.
Environment setting	Environment setting screen is displayed.
Delete site	Delete site screen is displayed.
Re-Scanning	Name master database selection screen is displayed. Not displayed when offline.
System Setting	System setting sub-menu is displayed.
Manual Setting	Manual setting screen is displayed.
Offline switching display	Offline data may be read again. Not displayed when online.
Version	Version information screen is displayed.
Exit	Exit confirmation screen is displayed.

4-1-2 Screen transition (online)

The following shows transition of the screens which are started from the right click online menu.

Environment setting

System List Display

Cancel

Manual Setting

Version

Cancel

Save unit data

Name master database

Cancel

Scanning setting

Scanning start

Program exit

System End
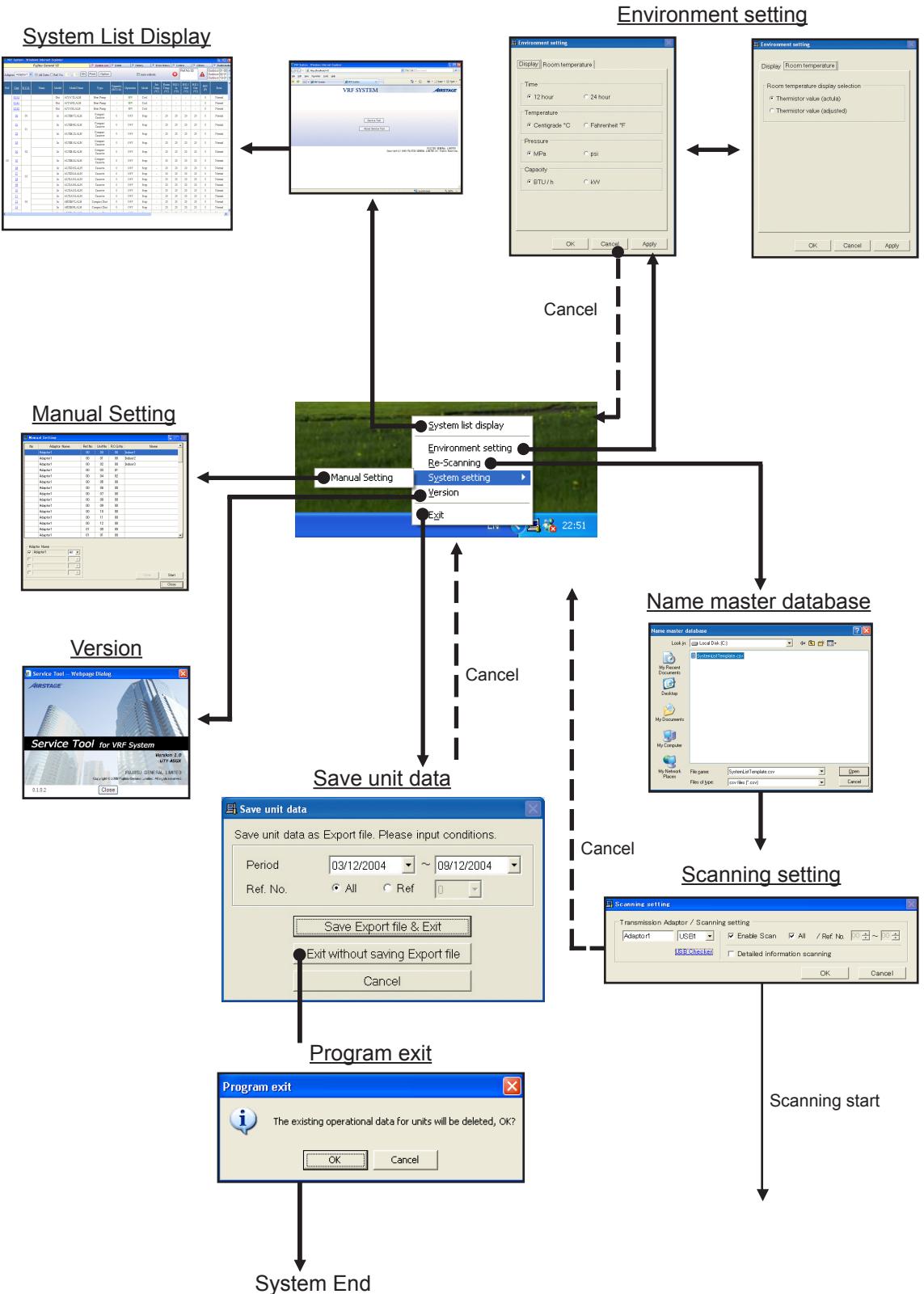
4-1-3 Screen transition (offline)

The following shows transition of the screens which are started from the right click offline menu.

System List Display

Environment setting

Cancel

System list display

Environment setting

Offline switching display

Version

Cancel

Exit

* If data currently displayed need to be saved, dialog box for saving the files will be displayed first.

Cancel

Version

Program exit

Program exit

Do you want to exit program?

OK   Cancel

* If data currently displayed need to be saved, dialog box for saving the files will be displayed first.

System End

4. Data acquisition application right click menu

4-2 Web browser starting (menu screen)

This is the initial screen. It displays Service Tool starting and version information.
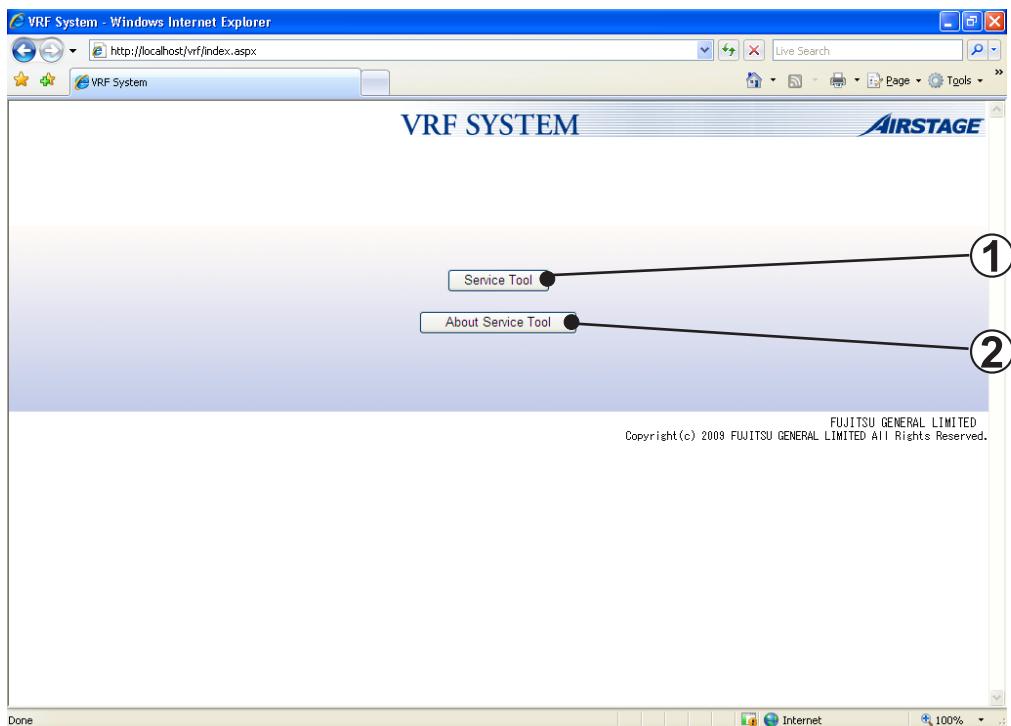
① Displays the system list screen.

② Displays the version information.

> **Note**
>
> * For details, refer to par. 5-2 Menu.

4-3 Environment setting

Various settings related to the operating environment are performed.

      Display tab: Sets the Time/Temperature/Pressure/Capacity display method.
      Room temperature tab: Sets the room temperature display method.

4-3-1 Display setting

Sets the display method of the Time/Temperature/Pressure/Capacity to be displayed by the Web application.
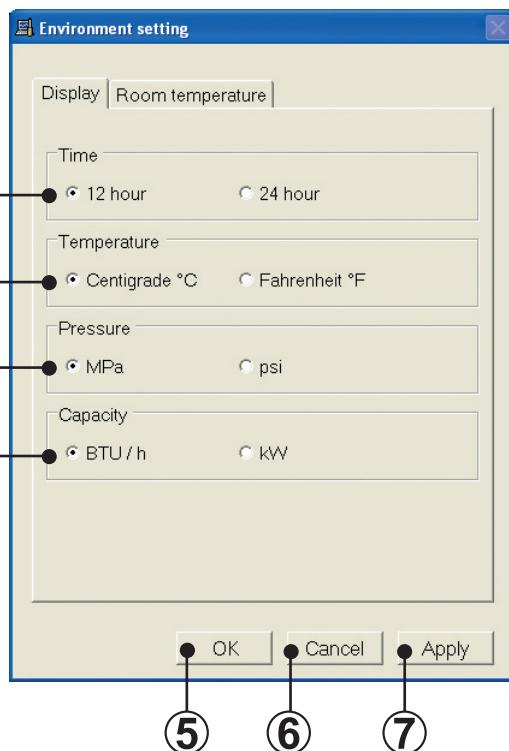
① Time display selection item
   Sets the time display format.
   For 12-hour display format, select "12 hour". For 24-hour display format, select "24 hour".

② Temperature selection item
   Sets the temperature display units.
   When you want to display the temperature in centigrade, select "Centigrade °C".
   When you want to display the temperature in fahrenheit, select "Fahrenheit °F".

③ Pressure selection item
   Select the pressure display units from "MPa" or "psi".

④ Capacity selection item
   Select the capacity display units from "BTU/h" or "kW".

4. Data acquisition application right click menu

⑤ OK button
When the [OK] button is clicked, the set contents are saved and the screen is closed.

⑥ Cancel button
When the [Cancel] button is clicked, environment setting stops and the screen closes.

⑦ Apply button
When the [Apply] button is clicked, the set contents are saved.

> **Note** ℹ️ After changing the display settings, the changes will take effect only from the Web application newly started from the Menu screen.
> In order for the changes to take effect, re-display the Web application from the Menu Screen (Refer to section 5-2).

4-3-2 Room temperature display setting

Sets the display method of the room temperature to be displayed by the Web application.
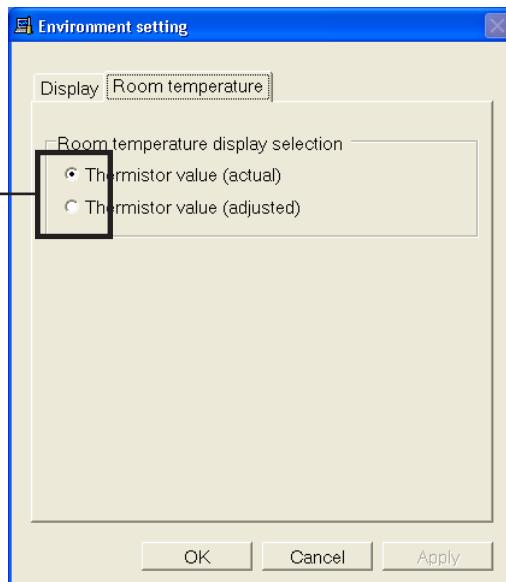
① Room temperature selection item
When you want to display the room temperature detected by sensor unchanged, select "actual". When you want to display the room temperature corrected (used in control) by the unit, select "adjusted".

> **Note** ℹ️ After changing the display settings, the changes will take effect only from the Web application newly started from the Menu screen.
> In order for the changes to take effect, re-display the Web application from the Menu Screen (Refer to section 5-2).

4-4 Re-scanning

Perform the operations described in par. 3-2-4 and 3-2-5.

4-5 Manual Setting

Manual unit name registration by manual setting can be performed. Manual setting enables you to register the names for each scanned unit, by operating each unit ON, one by one.
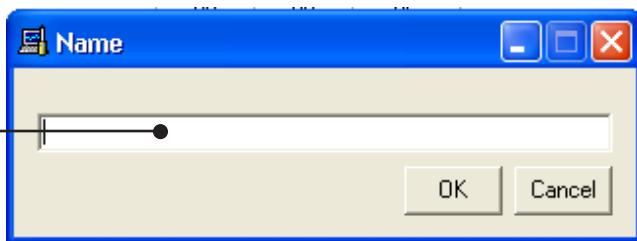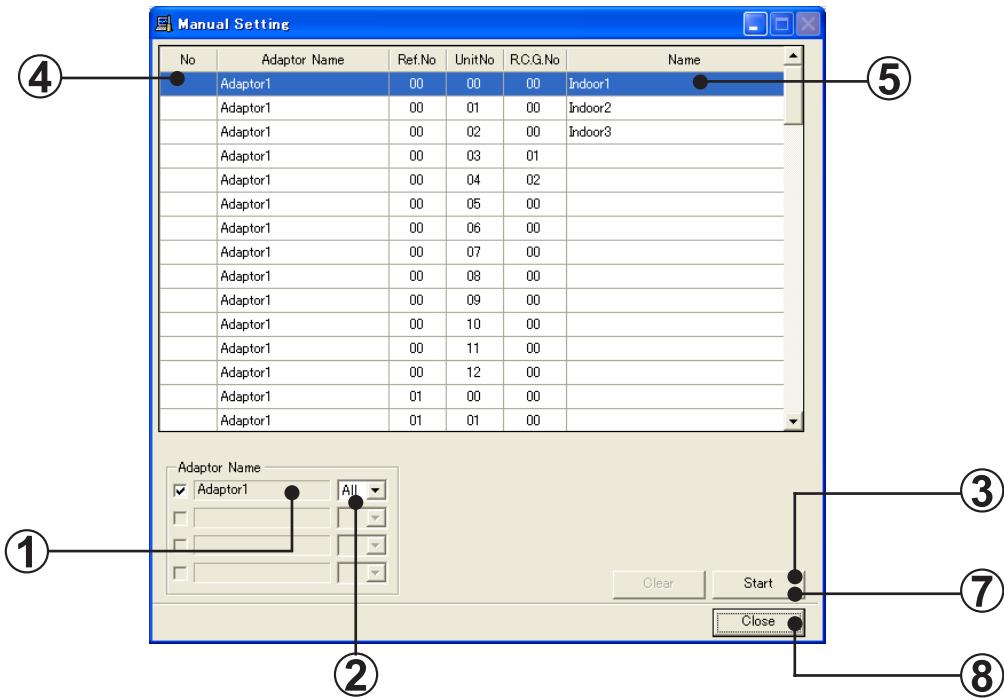
① Adopter selection
Select the network to which manual setting operation is to be performed, by checking the corresponding adaptor.

② Select "All" or the desired No. of refrigerant system to perform manual setting operation.

③ Start registration
Press to start. When manual setting operation starts, this button changes to "Stop".

④ Unit operation
Go to the unit location and start the unit operation with a remote controller. The units started will be listed in the order they are started on this list and will be numbered in that order.

⑤ Selecting units
When units are recognized and numbered, double click on the unit. The name registration dialog box will appear.

⑥ Naming units
Enter the name for the unit and press "OK".

⑦ Stop registration
Press "Stop" when finished with the registration.

⑧ End registration
Press "Close" to end manual setting registration.

> **Note**
> Instead of registering names for each start operation, you may operate all the units and name all the units at once after stopping registration.

4-6 Exiting

Exits the Service Tool. When exited, the unit data acquired up to that point can be saved as an Export file, as required. Care is required because all the data which is not saved when exiting is deleted.
The saved Export file can be referenced later in the offline mode. (See par. 3-3-1 Import file selection.)
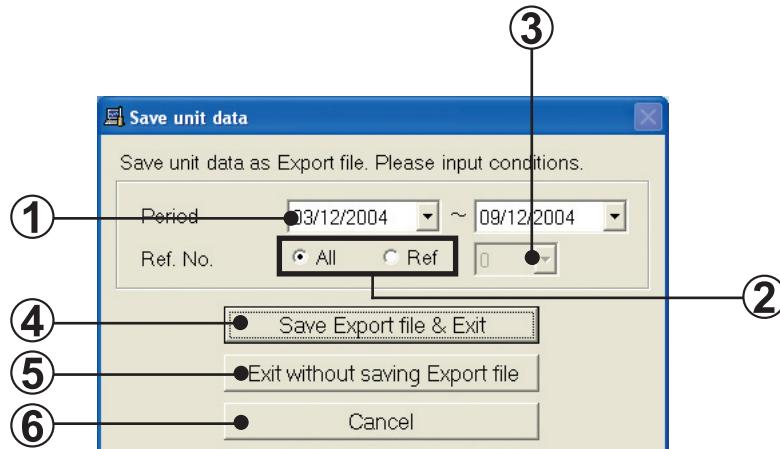
① Date setting field
Specify the date range of the data you want to save.

② Ref. No. setting field
When you want to save the data of all the refrigerant system No., select "All".

When you want to save the data of a specific refrigerant system No., select "Ref".

③ Ref. No. setting field
This field can be used only when "Ref" was selected.

Select the refrigerant system No. to be saved.

④ Save Export file & Exit button
Creates an Expert file and exits the Service Tool.

When the | Save Export file & Exit | button is clicked,
the save file dialog screen is displayed. Set the Export
file save location and save name.

When the | Save | button of the save file dialog screen
is clicked, Export file creation under the conditions set on
the screen starts. After the end of creation, the program exits from the Service Tool.

⑤ Exit without saving Export file button
When the | Exit without saving Export file | button is clicked, the program exits the Service
Tool without creating an Export file. When exiting the Service Tool, all the unit data
other than the system list is deleted. Therefore, when data must be referenced later,
save the data by selecting "Save Export file & Exit".

⑥ Cancel button
When the | Cancel | button is clicked, operation returns to the previ-
ous screen without exiting the Service Tool.

4-7 Offline switching display

Other offline data can be displayed without restarting the Service Tool.

When currently displayed data is of the version listed below, file save dialog box for the currently displayed data will be displayed prior to "Import file selection" dialog box where offline data may be selected.

Here, give an arbitrary file name and save. By saving the files, the data may be read and displayed faster the next time you read in (the speed may depend on the file volume). If you select "Cancel", the screen closes without saving the data.

<Version whose data will be save>
- Service Tool Ver. 1.1 (UTR-YSTB)
- Service Tool Ver. 3.0 or 3.1, 3.2 (UTR-YSTC)
- Service Tool Ver. 1.0 (UTY-ASGX)
- Web Monitoring Tool Ver. 3.0 or 3.1, 3.2 (UTR-YMSA)
- Web Monitoring Tool Ver. 1.0 (UTY-AMGX)

When file save dialog box closes (the dialog may not be displayed depending on the version), "Import file selection" dialog screen is displayed. Here, by selecting any file, the unit data will be displayed offline.

* Time required to display the data may depend on the data volume.

4. Data acquisition application right click menu

Contents

5. WEB application

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5. WEB application

5-1   Screen transition

Menu screen

Main screen (system list)

Expanded view

Operation history

Control

Others screen

Main menu

System List   Detail   History   Error History   Control   Others   Troubleshooting

Print   Option   ☑ Auto refresh   Ref.No 00   Ref.No 01   Ref.No 02   Outdoor[00-00]   Outdoor[02-01]   Outdoor[10-01]

Commissioning

Double click

Details

Troubleshooting

System selection

System list

Error history

Error contents
selection

Error selection

Error List

Error contents
selection

* For details, refer to the description of each screen.

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5. Web application

Screen	Function	Page
Menu screen	Initial screen. Starts the Service Tool and displays the version information	41
System list screen	Lists the status of each unit and the overall operating status can be grasped. This screen is displayed when shifting from the menu screen.	43
Details screen	Performs normal operation check and cause specification when an error was generated from the detailed status display of the units.	50
Commissioning tool	Test run instructions and commissioning data storage can be performed.	65
Operation history screen	Displays the indoor units or outdoor unit operating history information for each unit.	73
Error history screen	Displays the error information for each unit.	82
Control screen	Operation of each refrigerant system, indoor unit, or R.C. group can be controlled.	88
Others screen	• Performs new user registration, user password change, registered user deletion, and demand interval setup. • Save/Download data • Setting Auto-refresh interval and maximum No. of lines per page.	90
Troubleshooting screen	Displays the error contents and corrective action for S, V series units. Refer "Trouble Shooting" section of Service Manual for VII series.	100

5. Web application

5-2　Menu

This is the initial screen. It starts the Service Tool and displays the version information.
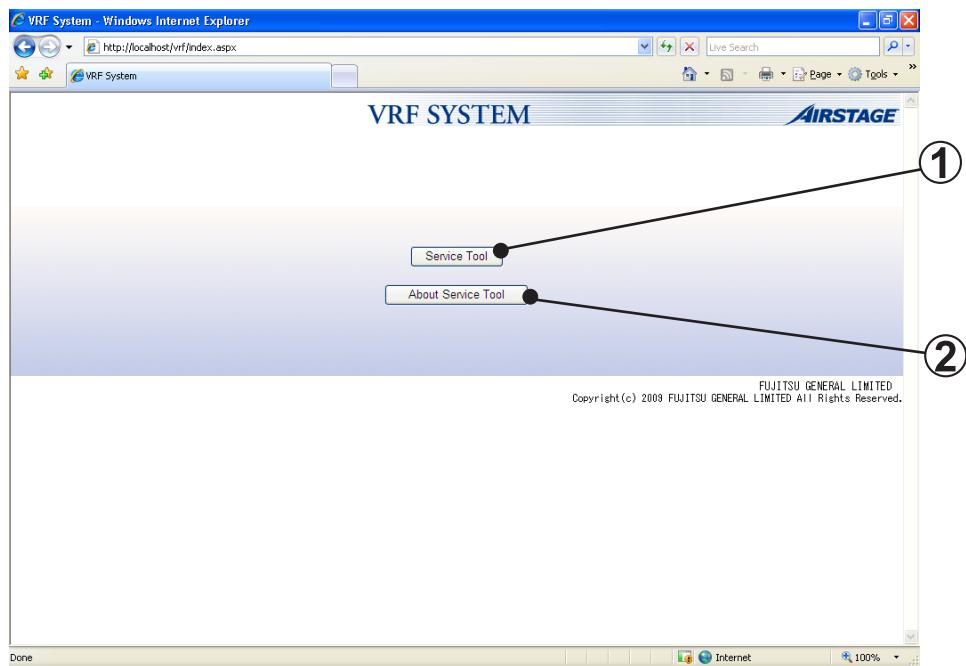
①　Service Tool button
Starts the Service Tool, and displays the detail screen.

②　About Service Tool button
Displays the version information.

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5. Web application

5-3 Main menu

Menu which is displayed at the top of the screen. Each time the button is clicked, the display shifts to the screen of the next function.
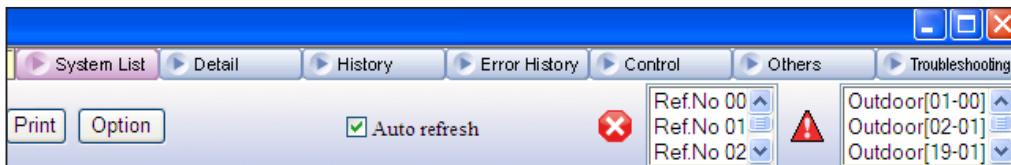
System List	Shifts to the system list screen.
Detail	Shifts to the detail screen.
History	Shifts to the operation history screen.
Error History	Shifts to the error history screen.
Control	Displays the control screen.
Others	Shifts to the others screen.
Troubleshooting	Displays the troubleshooting screen.
✖ (Emergency Stop)	Displays refrigerant system where emergency stop is activated.
⚠ (ERROR)	Up to 20 addresses of units currently generating an error can be displayed, beginning from the newest unit. Shift to the error history screen by double clicking the unit.

5-4   System list screen

This screen grasps the overall operating status from a list of the status of each unit. When an error unit is detected at this screen, shift to the system detail screen (refer to 5-5) and then check the detailed status. This screen can also be printed.

5-4-1 Name and function of each area

Control area

Display item

Control area

Adaptor	Displays the name of the transmission adaptor being used.
All Units	Displays all the units.
Ref. No.	Specifies the refrigerant system No. (narrow down display)
OK	Specified condition. Refreshes the display screen.
Print	Prints the currently displayed list.
Option	Set whether the column should be displayed or hidden.

Auto refresh	Specifies automatic refreshing of the display data.
	      Checked: Automatically refresh the screen at a 30 seconds interval.
	      Unchecked: Do not automatically refresh the screen.

Display items

Ref.	Displays the refrigerant system No.
Unit	Displays the unit No. and master / slave operation for outdoor unit. Shifted to unit detail screen of the selected unit No. by click operation.

5. Web application

R.C.G.	Displays the R.C. Group No.
Name	Displays the unit name.
Model	Displays the unit model (Indoor/Outdoor).
Model Name	Displays the model name of the unit. If the model name is with "[ ]" brackets, the name was written after shipment. If the model name is with "( )" brackets, the name was read from the Name master database file.
Type	Displays the unit type.
Capacity	Displays the indoor unit capacity. Indoor unit capacity is displayed in [BTU/h] or [kW] units. (*1)
Operation	Displays the operating status.
Mode	Displays the operating mode. 🔻 icon, if displayed, signifies that mode mismatch has occurred due to illegal operation. When "(Auto)" is displayed, operation is linked to the "Auto" mode of the master indoor unit of the refrigerant system.
Set Temp.	Displays the setting temperature. (*1)
Room Temp.	Displays the room temperature. (*1)
H.E.1. In	Displays the heat exchanger inlet temperature. (*1)
H.E.1. Mid	Displays the heat exchanger middle temperature. (*1)
H.E.1. Out	Displays the heat exchanger outlet .(*1) temperature
EEV	Displays expansion valve. Units display is [Pulse].
Error	When a unit is currently generating an error, displays [Error]. The troubleshooting screen (refer to 5-15) is displayed by clicking.
Special Operation	Displays special operation with icon. Refer "List of icon for special operation" below.
Fan	Displays the fan status. (*3)
V.T. Louver	Displays vertical louver position.
H.Z. Louver	Displays horizontal louver position.
R.C. Prohibition	Displays the R.C. Prohibition setting. * Display whether the "All prohibition" is enabled or disabled.
Time	Displays the newest receiving time of a transmission packet received by the Service Tool. (12-hour display or 24-hour display) (*2) • For summer time, (S) is displayed. Whether or not network communication is performed normally is made the judgment standard.

Note ℹ️

*1 Units display is [°C] or [°F]. The display format depends on the setting at the data acquisition application. (Refer to 4-3 Environment setting.)

*2 The display format depends on the setting at the data acquisition application.

*3 Sometimes, it may take time for the FAN status display to be updated in the System List screen. The delay time is proportional to the number of existing indoor units and may take approximately 2 minutes for 100 indoor units (the time does not have anything to do with the number of indoor units being controlled). In any case, the actual control operation to the indoor units are performed immediately after control operation from the Control screen, only the display delays.

5. Web application

## ■ List of icon for special operation

Outdoor unit

ICON	EXPLANATION
🕯️	Oil recovery operation
🕯️📄	Oil recovery operation ended
🛠️	Maintenance mode
❌	Emergency stop
☒	Outdoor unit stopped
❄️	Defrost operation
❄️📄	Defrost operation ended
🎵	Night mode operation
📋	Power save operation

Indoor unit

ICON	EXPLANATION
❄️	Freeze prevention operation
❄️	Anti-freeze operation
❄️✓	Anti-freeze setting
🛠️	Maintenance mode
◐	Master indoor unit
🟥	Operation mode controlled by master outdoor unit
🟥	Operation mode controlled by master indoor unit
❌	Emergency stop
🕯️	Energy save operation

5. Web application

5-4-2 System list display

Only the necessary units can be displayed by specifying the refrigerant system range. This is convenient when you want to display only the objective unit in the state in which a large number of units are connected to the system.
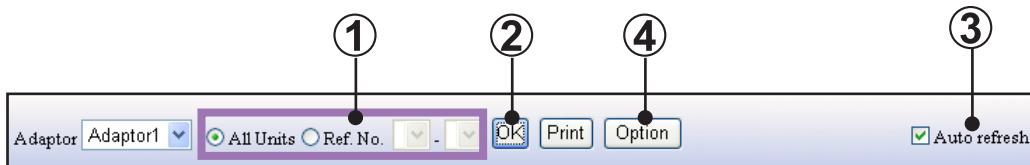
①　Select the range of the displayed refrigerant system. (*1)

②　When the OK button is clicked, the display data is refreshed.

③　The system list is automatically refreshed every 30 seconds by clicking ☐ Auto refresh .

④　Set whether Display item (column) should be displayed or hidden.
Items to be set in the option screen is as follows. When display items are set, they will be displayed right-wise.

Checked …display, Unchecked …hidden

Note　*1　When "All Units" is selected, the entire refrigerant system is displayed.

When "Ref No." is selected, a list of only the refrigerant systems of the specified range is displayed. Specify the range of the refrigerant systems you want to display.
Select the refrigerant system from ☑. The refrigerant systems currently registered are displayed.

5-4-3 System list printing

A print window of the currently displayed system list is displayed by clicking the Print button of the system list screen.

List area   Header item


① Printer setup and printing
Click on the print tool icon on the right upper corner of the screen and select "Page Setup...".

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In the Page Setup screen, select the size of the paper as "A3" and the Orientation as "Landscape" and press "OK". If other option is selected, the print may not come up as good.

Click on the print tool icon on the right upper corner of the screen again and select "Print..." to start printing.

| Note | For Internet Explorer Ver.6 users, use the sub-menu in "File" menu to bring up the "Page Setup" screen and to perform "Print". |

② Close button

When the ☒ button is pressed. the print window closes.

Printing contents

Header item

Site	Displays the site name.
Adaptor	Displays the transmission adaptor name.
Ref No.	Displays the specified refrigerant system range.
Current Date	Displays the current date.

List area

| List	Displays the system list displayed on the screen.

5-5 Detail screen (Diagram)

This screen displays the schematic, sensor values, and electrical components operating status of the selected system. At this screen, normal operation checks and cause specification when an error occurs are performed.

The schematic of 1 outdoor unit and 3 indoor units and three items graph can be simultaneously displayed.

Outdoor unit schematic diagram area

Control area

Indoor unit schematic area
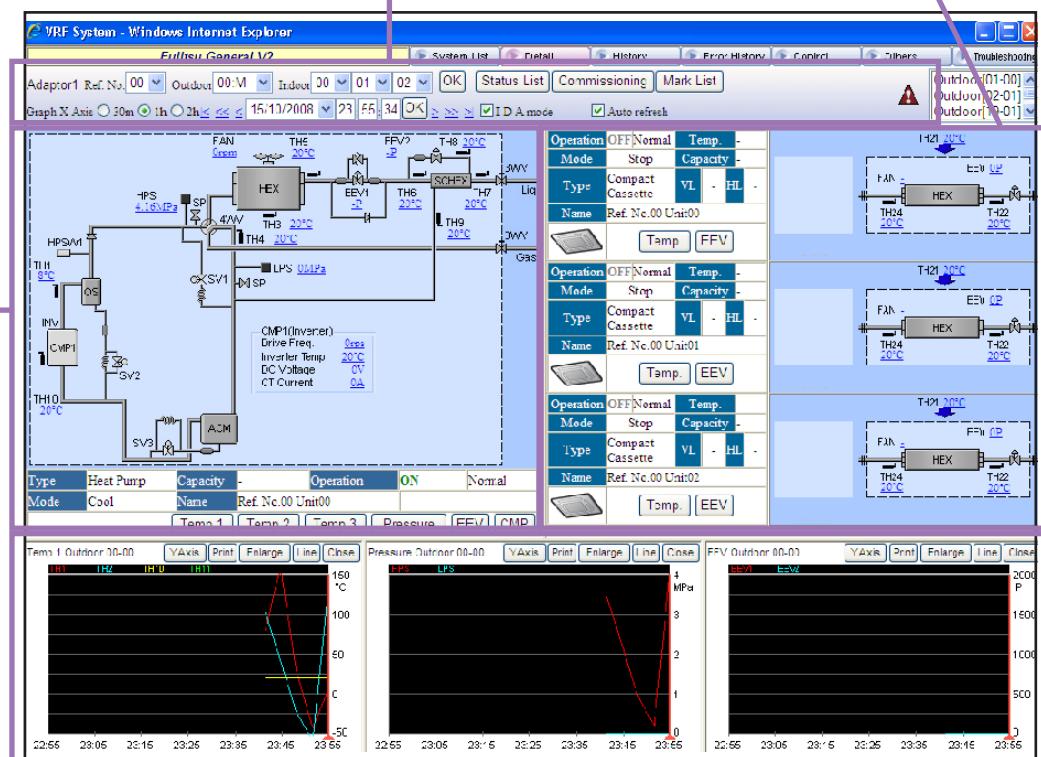
Graph area

5-5-1 Name and function of each area

■Control area

Sets display contents specification and automatic refresh on/off.

Ref. No.	Displays the refrigerant system No.
Outdoor	Specifies the outdoor unit No. displayed on the schematic.
Indoor	Specifies the indoor unit No. displayed on the schematic. (Up to 3 units can be specified.)
OK	The schematic of the specified unit is reflected on the screen by pressing this OK button after the refrigerant system No. and unit No. were specified. (*1)

Commissioning	Starts the commissioning tool. (Refer to 5-7 Commissioning tool.)
Status List	Switch to the "Status List screen". (Refer to 5-6 Detail screen (Status List))
Mark List	Displays the list of abbreviations.
Graph X Axis	Specifies the X-axis scale of the graph.
<, << , |<	Moves the display time. (Refer to 5-5-2 Schematic specification method.)
Date	Specifies the date of the display data.
Time	Displays the acquisition time of the display data. (12-hour display or 24-hour display) (*2) For summer time, (S) is displayed. By inputting time, data for the nearest time will be displayed.
IDA mode	Sets to the Intensive Data Acquisition mode which demands data from the Service Tool to each unit. (*3) The demand interval is set at 5-12-4 Demand interval setup. Checked: Demand output only for the displayed refrigerant system. Unchecked: Demand output for the entire system.
Auto refresh	Specifies automatic refreshing of the displayed data. Checked: Refresh screen automatically when refrigerant system status change. Unchecked: Do not automatically refresh the screen.

Note *1   When unchecked (no automatic refresh) at "Auto refresh", each time the OK button is pressed, the screen can be manually refreshed to the newest status.

*2   The display format depends on the setting at the data acquisition application. (Refer to 4-3 Environment setting.)

*3   A data demand is sent from the Service Tool at a fixed interval and the data returned by each unit in response to this demand is displayed on the screen. When checked, since demands are limited to the displayed refrigerant systems, detailed data collection is possible.
Conversely, a demand is not sent for refrigerant systems other than the displayed systems. Select this when you want to monitor a specific refrigerant system.
When unchecked, demands are sent to the entire system. However, instead of the demand range becoming wide, the data density becomes thin. Set when the system is operating normally and you want to monitor the entire system.

5. Web application

■Outdoor unit schematic area

This area displays the outdoor unit schematic. For the meaning of each symbol, refer to the "Design & Technical Manual". For the meaning of each item in the schematic, refer to the later schematic /graph display item.
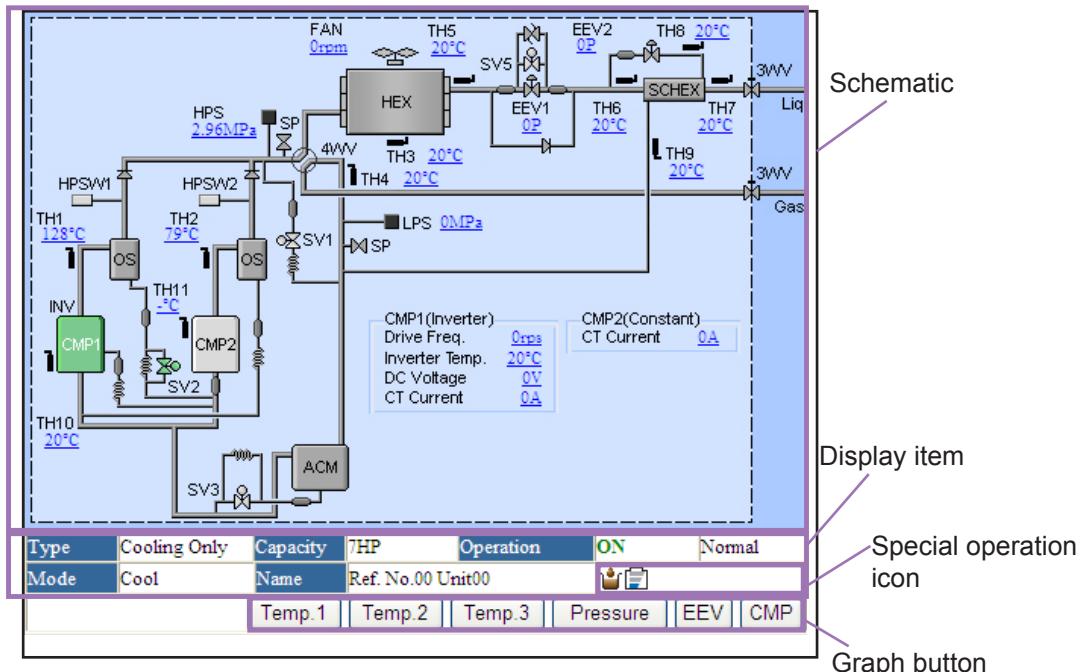
Schematic

Schematic	Displays a schematic of the specified unit. • The schematic depends on the unit.
Compressor CMP1	Displays the compressor status. On: Green Off: Gray
4-way valve/solenoid valve	Displays the 4-way valve/solenoid valve status. On: Green Off: Gray *The outdoor unit of S series (VRF1/1A) does not change of status. (gray display)

Display items

Type	Displays the unit type.
Capacity	Displays the capacity of outdoor unit.
Operation	Displays the operating status (ON/OFF) and unit status (Normal/Error).
Mode	Displays the operating mode.
Name	Displays the unit name. (*1)
Special operation icon	Displays the special operation status using icon. Refer "List of icon for special operation" in P65.

Note i *1   Only when preset (Refer to 3-2-4 Name master database file selection screen.)

5. Web application

Graph button
The graph corresponding to the clicked button is displayed. Up to 3 graphs can be displayed at the graph area. When you want to display a new graph, but 3 graphs are already displayed, close one of the graphs beforehand.

Temp.1	Displays discharge temperature graphs 1 ~ 3 at the graph area.
Temp.2	Displays the suction temperature and outdoor temperature graphs at the graph area.
Temp.3	Displays heat exchanger inlet/outlet temperature graphs 1 ~ 3 at the graph area.
Pressure	Displays a pressure graph at the graph area.
EEV	Displays an electrical expansion valve opening rate graph at the graph area.
CMP	Displays the operating status of the compressor at the graph area. For an inverter compressor, the operation frequency is also displayed.

5. Web application

■Indoor unit schematic area

Displays the schematic of up to 3 indoor units selected by control area. For the meaning of each item in the schematic, refer to the later schematic/graph display item.

Display item

Graph button

Schematic

Special operation icon
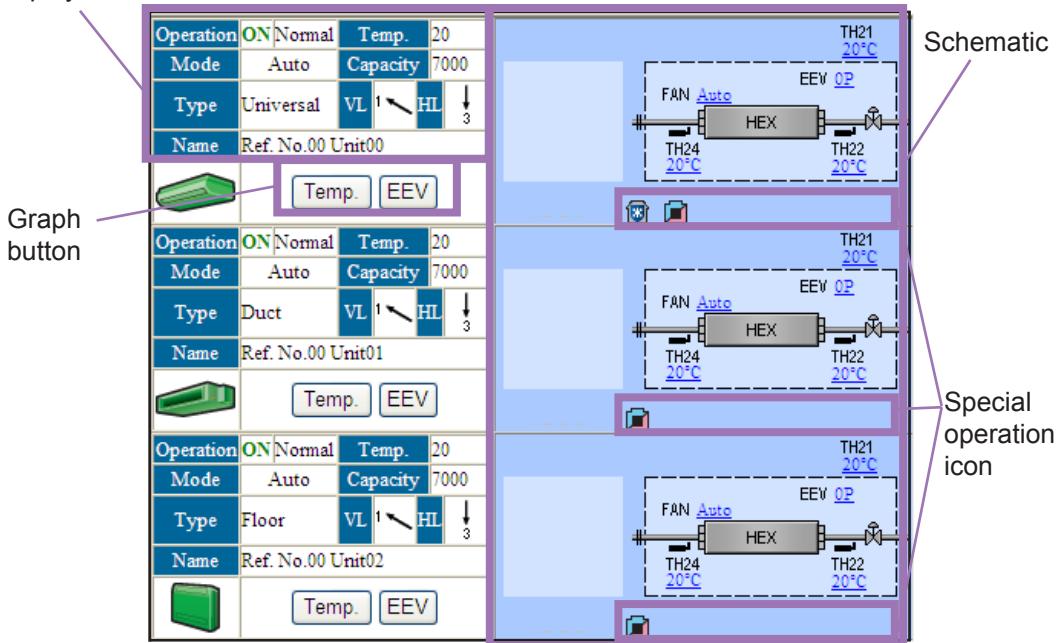
Display items

Operation	Displays the operating status (ON/OFF) and unit status (Normal/Error).
Mode	Displays the operating mode. (Refer to 5-4-1 Name and function of each area.)
Type	Displays the unit type.
Name	Displays the unit name. (*1)
Temp.	Displays the setting temperature. Units display is [°C] or [°F]. (*2)
Capacity	Displays the capacity. Units display is [BTU/h] or [kW]. (*2)
VL	Displays the vertical louver position.
HL	Displays the horizontal louver position.
Indoor Unit Icon 	Displays the status of the indoor units. The display color depends on the status. On: Green Off: Gray Test: Orange On (Error): Green Off (Error): Gray Test (Error): Orange

Note *1 Only when preset. (Refer to 3-2-4 Name master database file selection screen.)

*2 The display format depends on the setting at the data acquisition application. (Refer to 4-3 Environment setting.)

5. Web application

Graph button

The graph corresponding to the clicked button is displayed. Up to 3 graphs can be displayed at the graph area. When you want to display a new graph, but 3 graphs are already displayed, close one of the graphs beforehand.

Temp	Displays a temperature graph at the graph area.
EEV	Displays an electrical expansion valve pulse value at the graph area.

Schematic

Schematic	Displays the schematic of the specified units. Up to 3 units can be displayed. The R.B. unit status will only be displayed beside the refrigerant circuit when the system type is heat recovery.
Special operation icon	Displays the special operation status using icon. Refer "List of icon for special operation in P65."

5. Web application

■Graph area

Graphs are displayed by clicking each button of the control item from the indoor unit/outdoor unit schematic area.

Probe
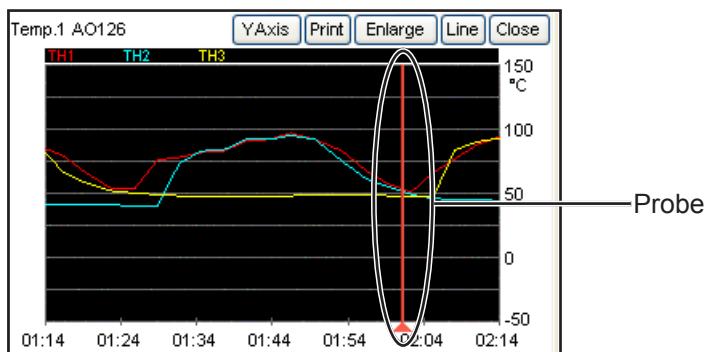
Name	The graph item/unit name (if set) are displayed at the top left-hand corner of the graph area.
YAxis	Upper and lower limit of Y axis of the graph may arbitrary be set (*3). Allowable range for each graph types is as follows. • Temp: -75~185 °C/-122~398 °F • Pressure: 0~5 Mpa/0~730 psi • EEV: 0~2000 Pulse • CMP: 0~300 Hz
Print	Displays the print confirmation window. (*1)
Enlarge	Enlarges and displays a graph. (*1)
Line	Displays the graph line selection screen. (*1)
Close	Closes the graph.
Probe	The probe is moved to the left and right by dragging it with the mouse. The unit status received at the past time at the probe position is reflected on the schematic. When a past unit status is referenced, the "Auto refresh" check mark is automatically removed. (*2)

Note *1 For details, refer to the next clause (Graph area details).

*2 When displaying the files created by previous version of this product (Ver. 1.1:mdb files) in offline mode, indoor and outdoor unit data corresponding to the time position of the probe may not synchronize. This is because in previous version, the data collecting method of the Service Tool was different from the present version.

*3 After upper and lower limit is set, scale for the Y axis will evenly be apportioned. Therefore, the scale may slightly be different from the actual value.

■ Graph area details

- Graphs can be printed by clicking the Print button.

① OK button
Start printing by clicking the OK button.

Since a print confirmation screen is displayed, follow the instructions displayed on the screen. Set the printing form in the horizontal direction.

② Cancel button
Close the print window without printing by clicking the Cancel button.
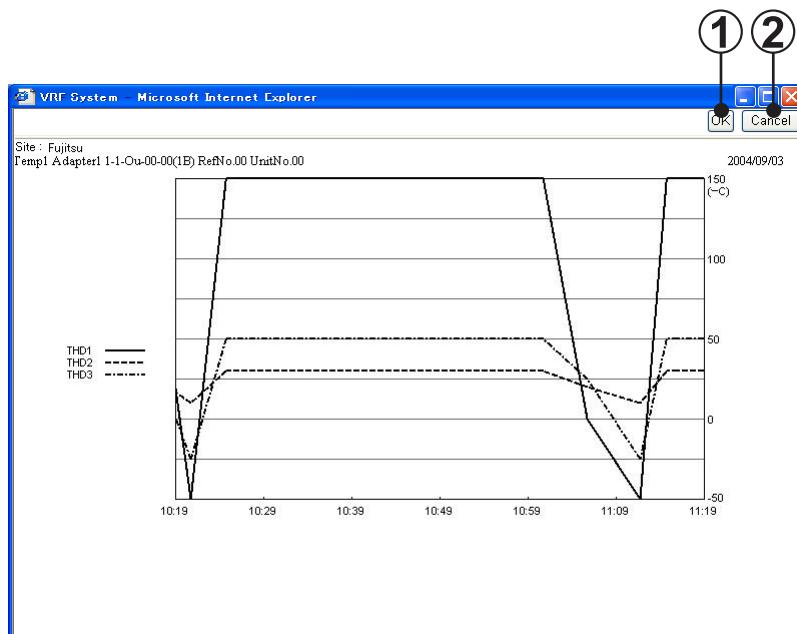
- The graph is vertically enlarged 2 times and displayed by pressing the Enlarge button.
- The graph line selection screen is displayed by pressing the Line button.
  Graph display/hide can be set by checking/unchecking.
  For the meaning of each item displayed on the graph line selection screen, refer to the later schematic/graph display item.

5. Web application
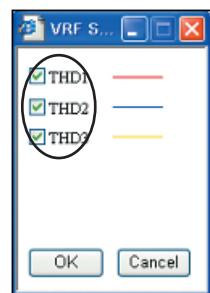
■ Schematic/graph display item

Shows the item names and contents displayed on the schematic and graph screens. The items in the graph button field can be graphically displayed with the graph button of the relevant name. However, there are also items which may not be displayed, depending on the unit series (S / V / VII) and unit type (free / cooling only / heat pump).

- Outdoor unit

S	V	VII	Graph button	Description
CMP1			CMP	Compressor 1
CMP2			CMP	Compressor 2
CMP3		—	CMP	Compressor 3
HEX			—	Heat exchanger
Fan			—	Outdoor fan
ACM			—	Accumulator
RCV		—	—	Receiver tank
OS			—	Oil separator
—	SCHEX		—	Sub cool heat exchanger
HPS			Pressure	High pressure sensor
MPS	—		Pressure	Middle pressure sensor
LPS			Pressure	Low pressure sensor
4WV1	4WV		—	4-way valve 1
4WV2	—		—	4-way valve 2
4WV3	—		—	4-way valve 3
4WV4	—		—	4-way valve 4
EEV1			EEV	Electrical expansion valve 1
EEV2			EEV	Electrical expansion valve 2
EEV3	—		EEV	Electrical expansion valve 3
—	SV1		—	Solenoid valve 1
—	SV2		—	Solenoid valve 2
—	SV3		—	Solenoid valve 3
—	SV4	—	—	Solenoid valve 4
—	SV5		—	Solenoid valve 5
—	SV6		—	Solenoid valve 6
—	SV7	—	—	Solenoid valve 7
—	SV8	—	—	Solenoid valve 8
THD1	TH1		Temp.1	Discharge temperature 1
THD2	TH2		Temp.1	Discharge temperature 2
THD3	—	TH3	Temp.1	Discharge temperature 3

THHI1	—	TH5	Temp.3/2	Heat exchanger inlet temperature 1 (S/V) Heat exchanger temperature (VII)
THHI2	—		Temp.3	Heat exchanger inlet temperature 2
THHI3	—		Temp.3	Heat exchanger inlet temperature 3
THHO1	TH4	—	Temp.3/2	Heat exchanger outlet temperature 1
THHO2	—		Temp.3	Heat exchanger outlet temperature 2
THHO3	—		Temp.3	Heat exchanger outlet temperature 3
—	TH5	—	Temp.3	Receiver low level temperature
—	TH6	—	Temp.3	Receiver middle level temperature
—	TH7	—	Temp.3	Receiver high level temperature
—	TH8		Temp.3	SCHEX outlet temperature
—	TH9	TH6	Temp.2	Liquid temperature 1
—	TH10	TH7	Temp.2	Liquid temperature 2
THS	TH11	TH4	Temp.2/3	Suction temperature
THO	TH12	TH3	Temp.2	Outdoor temperature
—	TH13	TH9	Temp.3	SCHEX inlet temperature
—	—	TH10	Temp.1	Displays shell temperature (Invertor Comp.)
—	—	TH11	Temp.1	Displays shell temperature (Constant rate Comp.)
3WV			—	3-way valve
BV	—		—	Ball valve
SP			—	Service port
HP	—	HPSW1	—	High-pressure switch1
—	—	HPSW2	—	High-pressure switch2
LP	—		—	Low-pressure switch
—	Drive Freq.(Hz)	Drive Freq.(rps)	CMP	Displays drive frequency
—	Inverter Temp.(°C)		—	Displays IGBT temperature.
—	DC Voltage(V)		—	Displays DC voltage
—	CT Current(A)		—	Displays CT current

5. Web application

- Indoor unit

S	V	VII	Graph button	Description
EEV1	EEV		EEV	Electrical Expansion valve
MAX	—		—	Displays maximum EEV value.
THOA	—		Temp	Outlet temperature
THIA	TH21		Temp	Room temperature
THHI	TH22		Temp	Heat exchanger inlet temperature
THHM	TH23	—	Temp	Heat exchanger middle temperature
THHO	—	TH24	Temp	Heat exchanger outlet temperature
SVD	—		—	Discharge solenoid valve
SVS	—		—	Suction solenoid valve
SVB	—		—	Bypass solenoid valve

5. Web application

5-5-2 Schematic specification method

The refrigerant system, outdoor unit, and indoor unit are specified at the control area and the schematic is displayed. The graph X-axis/display date are also changed and the screen is refreshed.
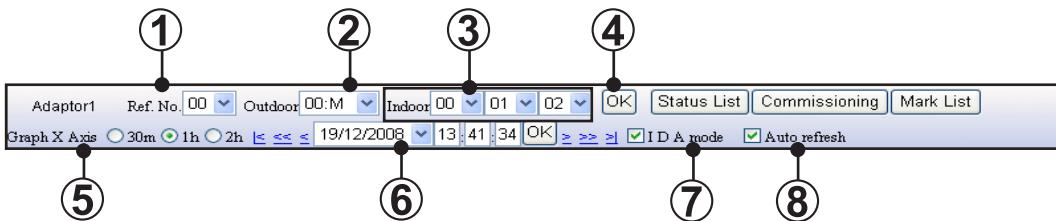
① Specifies the refrigerant system.

② Selects the outdoor unit.

③ Selects the indoor units. (Up to 3 indoor units can be selected.)

④ When the [OK] button is clicked, the schematic display is refreshed. (*1)

⑤ Changes the X-axis time. Select from [Graph X Axis ○30m ⊙1h ○2h] . (*2)

⑥ Displays the data of the specified date/time. (*3)
Select the date from [14/10/2004 ▼] .
Change the time by the following method.

< & >	Shift the time 1 graduation.
<< & >>	Shift the time 1 axis.
I< & >I	Shift up to the first or last data acquisition time of the specified date.
02:58:24	By inputting time, data for the nearest time will be displayed.

⑦ Demands are sent to the currently displayed refrigerant system in a concentrated manner by checking [□ I D A mode] . When you want to monitor units at a shorter interval, check mark the box.

⑧ Automatically refresh the screen at a 30 seconds interval by checking
[□ Auto refresh] .

Note
ℹ
*1 The latest date/time are displayed.Only when preset.

*2 The X-scale of the graph is changed by selection. (Default 1h)

*3 The dates at which there is data are displayed in a list and can be selected. When the date/time was changed and the schematic was displayed, the check mark is removed from "Auto refresh".

5. Web application

5-6 Detail screen (Status List)

The Status List is started with the [Status List] button of the detail screen control area.
Status list screen will be switched from the diagram screen by pressing the "Status list" button in the detail screen area.
In this screen, detail data for all the units in the specified refrigerant system will be displayed at a certain point of time.

Control area

Outdoor unit status area

Indoor unit status area

5. Web application

5-6-1 Name and function of each area

■Control area

Sets display contents specification.

Ref.No.	Displays the refrigerant system No. Also, any refrigerant system No. may be specified and be switched to.
OK	Fix the Ref. No. and the date / time of the data to be displayed.
≤ & ≥	Shift up to the first or last data acquisition time of the specified date.
≤ & ≥	Shift the time 1 graduation.
Date/Time	Date/time for the data currently displayed will be shown. By specifying specific date and time, any data may be displayed.
Option	Set whether Display item (column) should be displayed or hidden. Items to be set in the option screen is as follows. When display items are set, they will be displayed right-wise. Checked … display, Unchecked … hidden
IDA mode	Sets to the Intensive Data acquisition mode which demands data from the Service Tool to each unit. Checked: Demand output only for the displayed refrigerant system. Unchecked: Demand output for the entire system.
Auto refresh	Specifies automatic refreshing of the displayed data. Checked: Automatically refresh the screen at a 30 seconds interval. Unchecked: Do not automatically refresh the screen.
Diagram	This will switch to the Diagram screen. (Refer to 5-5 Detail screen (Diagram))
Commissioning	Starts the commissioning tool. (Refer to 5-7 Commissioning tool.)
Mark List	Displays the list of abbreviations.

5. Web application

■**Outdoor unit status area**

Display the following operation status of each outdoor unit according to the condition given in the Control area.

Unit	Displays the unit No.
Name	Displays the unit name.
Type	Displays the unit type.
Operation	Displays the operating status (ON/OFF) and unit status (Normal/Error).
Special operation	Displays special operation.(*1)
Mode	Displays the operating mode.

*   For other information, refer to the 5-5-1 Name and function of each area, Schematic/graph display item (Outdoor unit).
*1 For the meaning of the displayed icons, refer, icon list below

■**Indoor unit status area**

Display the following operation status of each indoor unit according to the condition given in the Control area.

Unit	Displays the unit No.
Name	Displays the unit name.
Type	Displays the unit type.
Capacity	Displays the capacity. Units display is [BTU/h] or [kW].
Operation	Displays the operating status (ON/OFF) and unit status (Normal/Error).
Special operation	Displays special operation.(*1)
Mode	Displays the operating mode. (Refer to 5-4-1 Name and function of each area.)
Set Temp.	Displays the setting temperature. Units display is [°C] or [°F].
Fan	Displays the fan status.
V.T. Louver	Displays vertical louver position.
H.Z. Louver	Displays horizontal louver position.

*   For other information, refer to the 5-5-1 Name and function of each area, Schematic/graph display item (Indoor unit).
*1 For the meaning of the displayed icons, refer, icon list below

## ■ List of icon for special operation

Outdoor unit

ICON	EXPLANATION
	Oil recovery operation
	Oil recovery operation ended
	Maintenance mode
	Emergency stop
	Outdoor unit stopped
	Defrost operation
	Defrost operation ended
	Night mode operation
	Power save operation

Indoor unit

ICON	EXPLANATION
	Freeze prevention operation
	Anti-freeze operation
	Anti-freeze setting
	Maintenance mode
	Master indoor unit
	Operation mode controlled by master outdoor unit
	Operation mode controlled by master indoor unit
	Emergency stop
	Energy save operation

5. Web application

5-7　Commissioning tool

The commissioning tool is started with the [Commissioning] button of the detail screen control area.

Test run commands can be executed with the commissioning tool. During test running, the outdoor unit/indoor unit sensor data can be saved (commissioning log data). After the end of test running, this data can be exported in CSV file format.

The exported CSV file can be used in commissioning report generation by reading the CSV file by Excel or other spreadsheet application.

The commissioning screen is automatically refreshed and the latest status is displayed every 30 seconds.

5-7-1　Name and function of each area

■Control area (initial display)

Ref No.	Displays the refrigerant system No.
Test Pattern Select	Selects "Cooling Test" / "Heating Test" . When selection is switched, unit button selections are all reset.
Clear data	Clears all the commissioning log data of the displayed refrigerant system.
CSV	Creates the commissioning log data to an arbitrary file as a CSV file.
Close	Closes the commissioning tool screen. Test running is not stopped at exiting.
Stop	Executes a stop command for all the indoor units of the relevant refrigerant system.
Start	Executes the test run command for the selected unit. After the Start button was pressed, unit button selection cannot be changed. If there is even one indoor unit currently being operated by control, etc. from another unit, test run commands cannot be executed. Use the Stop button and stop all the units in advance.

5. Web application

Unit Name Display Area	When a unit name is registered, and the mouse cursor is aligned with the unit button, that unit name is displayed. (Only when set)
Unit Button (outdoor unit)	Represents the current status by character color and back ground color. (*1) When one outdoor unit button is selected, other outdoor unit buttons can be simultaneously selected.
Unit Button (indoor unit)	Represents the current status by character color and back ground color. (*1) Multiple indoor unit buttons can be simultaneously selected.
Commissioning Log Data Yes/No Display Area	Displays whether or not there is commissioning log data for each unit. (*2)

Note *1 Unit button display status (indoor unit/outdoor unit)

Display		Status
00	Character color (black)	Unselected state
00	Character color (Red: Bold & italic)	Selected state
00	Button color (green)	(Indoor unit) Running (Outdoor unit) Unit running or thermostat on
00	Button color (gray)	(Indoor unit) Stopped (Outdoor unit) Unit stopped or thermostat off

*2 Commissioning log data yes/no display status

Display		Status
03	Background color (blue)	Commissioning log data of the unit of the currently selected test pattern.
03	Background color (gray)	No commissioning log data of unit of the currently selected test pattern

5. Web application

■Control area (after run command)
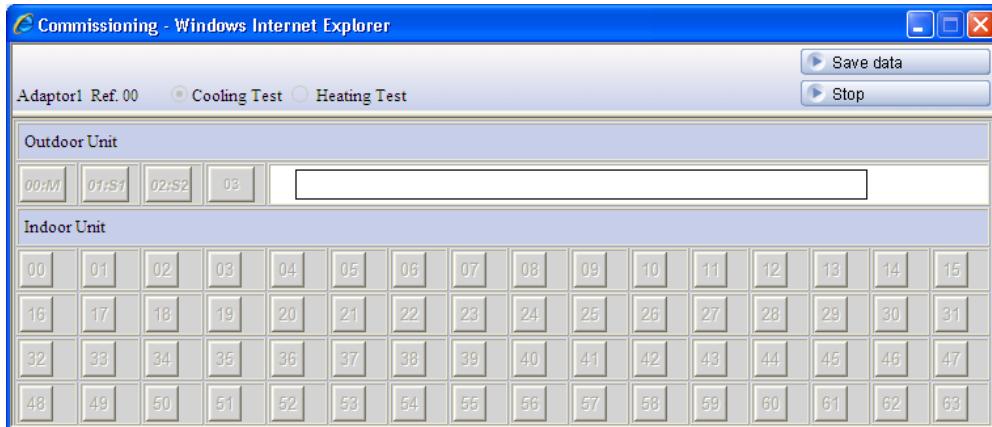
Save data	Saves the sensor data of the test running unit to the commissioning log data. The commissioning log data is saved for each Test Pattern.
Stop	Stops test running of the relevant refrigerant system and returns to the initial display.
Unit Button	After run command, enters the unselectable state. For units which performed a test run, the button color is displayed in green.

5-7-2 Operating procedure

Selects the test items and the units to be tested from all the units stopped status.

① Check the refrigerant system No. to which the units which are to be test run at "Ref." on the screen.
Since the refrigerant system No. specified at the detail screen is displayed here, when making changes, after re-specifying by 5-5 Detail screen and pressing the OK button, start the commissioning tool.

② Select the test pattern according to the item to be test run.
For test run by cooling, select "Cooling Test" and for test run by heating, select "Heating Test".
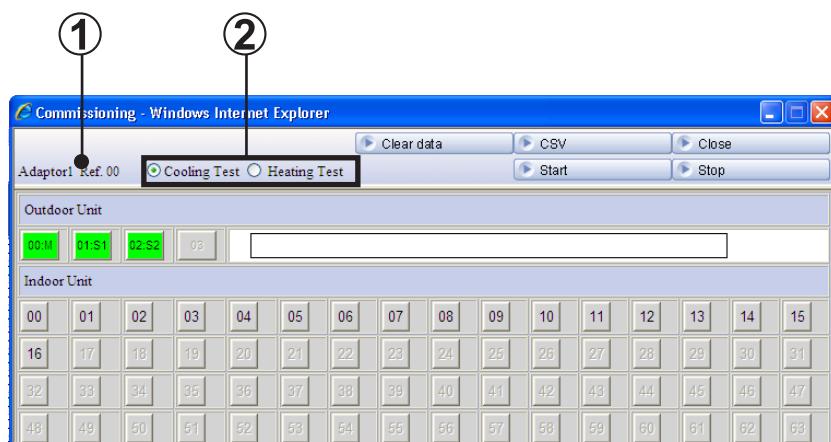
③ Select the unit which is to start test run. Select the unit by clicking the button of the relevant unit No.
The selected unit is displayed by a red italic numeric.

For outdoor units, when any button is selected, all the indoor units also enter the selected state. For indoor units, when any button is selected, all the units that belong to the same R.C. group as the selected unit No. also enter the selected state.

④ When the ▶ Start button is clicked in the units selected state, test run is started.

5. Web application
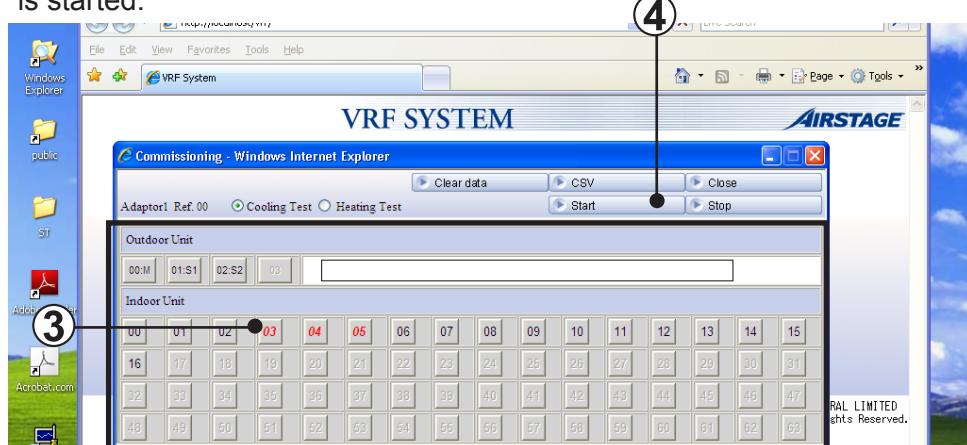
⑤ The button of units that have entered the test run state is displayed in green. When an indoor unit was selected and started, the selected indoor units enter the test run state. When an outdoor unit was selected and started, all the indoor units enter the test run state.

After test run starts, new test run objective units cannot be added. Perform test run stop of ⑦ , clear the commissioning log data of ⑨ , as required, and repeat operation from the initial state.

⑥
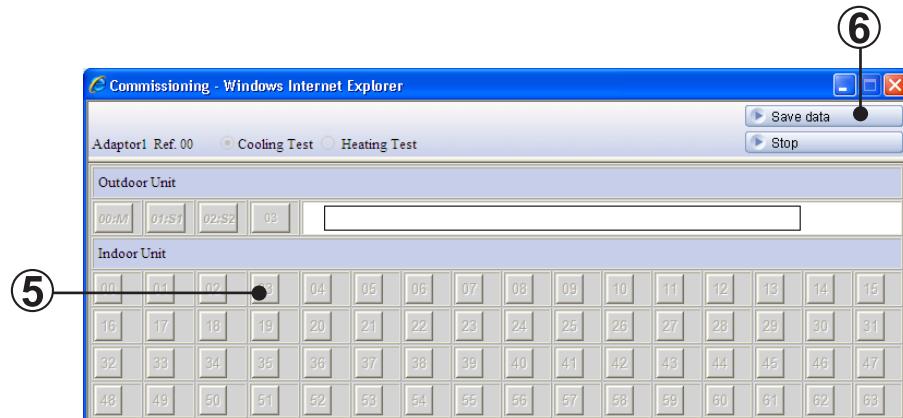
⑥ The commissioning log data of the selected units (italic bold characters) is saved by clicking the [▶ Save data] button. On the screen, the background color of the unit No. that generated the commissioning log data changes to blue.

⑦

5. Web application
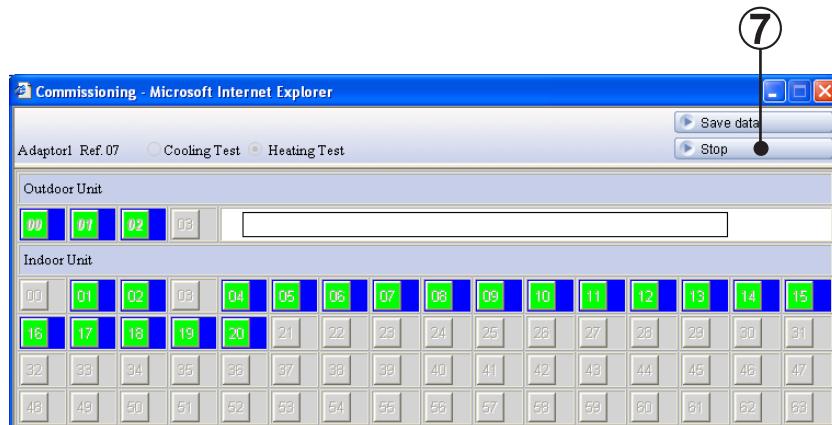
⑦ Test run can be stopped by clicking the [▶ Stop] button.
The display returns to the initial screen, but the commissioning log data cannot be cleared. (The background color of the unit Nos. at which there is commissioning log data remains blue.)
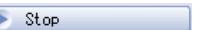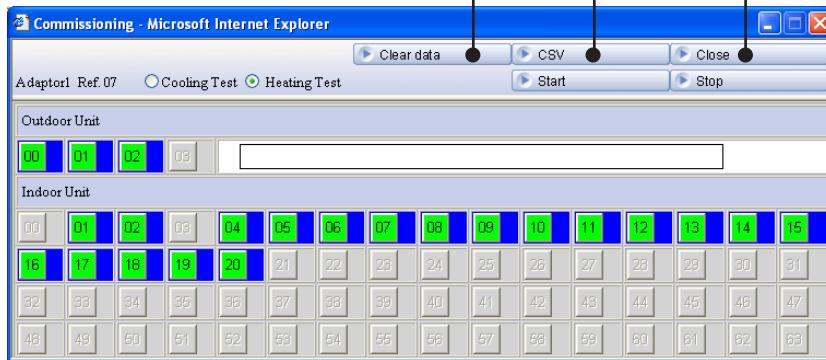
⑧ A CSV file for generating a commissioning report can be saved to an arbitrary folder by clicking the [▶ CSV] button in the state of the unit which generated the commissioning log data. (For the commissioning report generation method, refer to 5-7-3 Commissioning report generation.)

⑨ The commissioning log data can be cleared by clicking the [▶ Clear data] button. When the commissioning log data is cleared, the background color returns to gray.
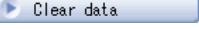
⑩ End the commissioning tool by clicking the [▶ Close] button.
However, units which are test running are not stopped.

5. Web application

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5-7-3 Commissioning report generation

There is a template to easily generate a commissioning report. (*1)
A commissioning report can be easily generated by reading the CSV file generated by the commissioning tool to this template.

① Since there is a template named "CommissioningReport.xls" at C:\Program Files\VRF System\Service Tool, open that file with Excel. (*1)

② Display the started Excel "Creation" sheet.
A screen like that shown below is displayed. (*2)
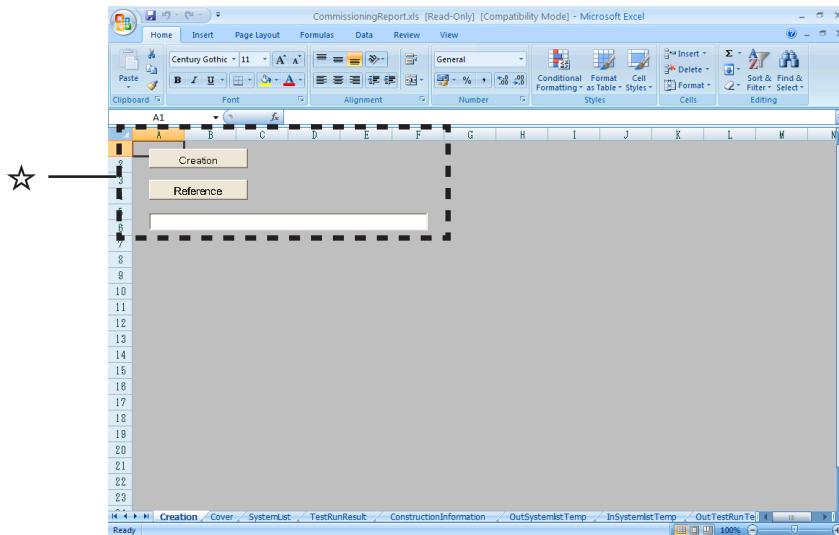
Overview of each sheet

Creation	This screen is used to specify the read CSV file and execute commissioning report generation.
Cover	Commissioning report cover (*3)
SystemList	System list
TestRunResult	Test run result
ConstructionInformation	Construction information (*3)
OutSystemListTemp	System list template (outdoor unit)
InSystemListTemp	System list template (indoor unit)
OutTestRunTemp	Test run result template (outdoor unit)
InTestRunTemp	Test run result template (indoor unit)
DataSheet	Temporarily saves the CSV data. This sheet is used in report generation processing.

☆ Enlarge
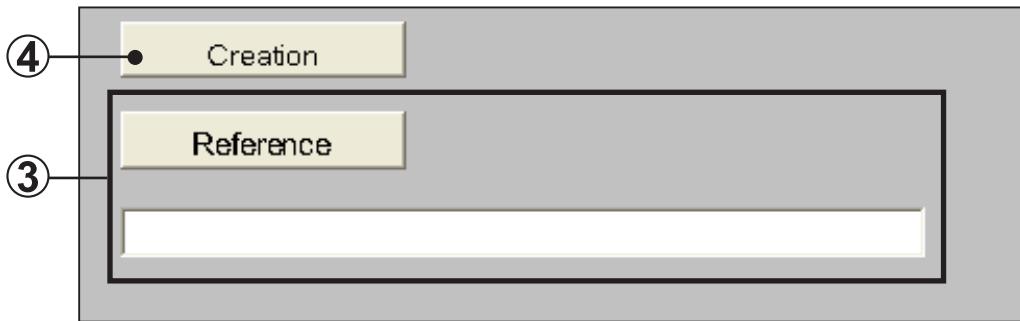
③ Specify the read CSV file by full path.
A file reference dialog box is displayed by clicking the [Reference] button.

When a file other than a CSV file created by commissioning tool was specified when the path is incorrect, a commissioning report is not generated.

Specify the correct file.

④ Create "SystemList" and "TestRunResult" which read the CSV file specified at ③ by clicking the [Creation] button.

Note *1 This template is created by Excel spreadsheet program.
Excel must be purchased separately.
When opening the file, you may be asked if you want to enable macro, depending on the security level set within Excel. In such cases, select "Enable Macros".

*2 When you want to change the displayed sheet, click the sheet heading at the bottom of the screen. (See the following figure.)
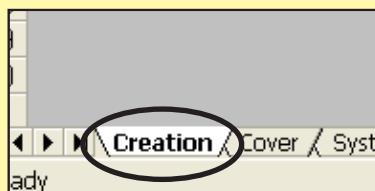
*3 Since generation is not automatic, the necessary items are inputted manually.

5. Web application

5-8　Operation history screen

The indoor units or outdoor unit operation history is displayed for each unit.
The displayed operation history can be printed and saved to a CSV file.
History display can display up to 500 items for the specified period.

5-8-1　Name and function of each area

■ Control area (common)

Ref. No.	Specifies the refrigerant system No.
Unit	Switches outdoor unit/indoor unit and selects the unit No.
Date	Specifies the date of the history data to be displayed.
Time	Specify the time range of the history data to be displayed.
OK	Displays the data of the unit of the specified conditions.
Type	Displays the unit type.
Capacity	Displays the capacity of outdoor unit.
Name	Displays the unit name.
Print	Displays a print window.
CSV	Displays the CSV save window.
Mark List	Displays the list of abbreviations.
Option	Set whether Display item (column) should be displayed or hidden.

■ Outdoor unit

Display item

Page area

5. Web application

- Display item

S	V	VII	Description
Time			Displays the data acquisition time. (*1) For summer time, (S) is displayed.
Operation			Displays the operating status/unit status
—		Special operation	Displays special operation in icon. Refer "Icon list for special operation" below.
Mode			Displays the operating mode.
THD1	TH1		Displays discharge temperature 1. (*2)
THD2	TH2		Displays discharge temperature 2. (*2)
THD3	TH3	—	Displays discharge temperature 3. (*2)
THHI1	—	TH5	Displays heat exchanger inlet temperature 1. (S/V) Displays heat exchange temperature (VII). (*2)
THHI2	—		Displays heat exchanger inlet temperature 2. (*2)
THHI3	—		Displays heat exchanger inlet temperature 3. (*2)
THHO1	TH4	—	Displays heat exchanger outlet temperature 1. (*2)
THHO2	—		Displays heat exchanger outlet temperature 2. (*2)
THHO3	—		Displays heat exchanger outlet temperature 3. (*2)
—	TH5	—	Displays receiver low level temperature. (*2)
—	TH6	—	Displays receiver middle level temperature. (*2)
—	TH7	—	Displays receiver high level temperature. (*2)
—	TH8		Displays the SC HEX outlet temperature. (*2)
—	TH9	TH6	Displays liquid temperature 1. (*2)
—	TH10	TH7	Displays liquid temperature 2. (*2)
THS	TH11	TH4	Displays the suction temperature. (*2)
THO	TH12	TH3	Displays the outdoor temperature. (*2)
—	TH13	TH9	Displays the SCHEX inlet temperature. (*2)
—	—	TH10	Displays shell temperature (Invertor comp.)
—	—	TH11	Displays shell temperature (Constant rate comp.)
HPS			Displays high pressure. (*3)
LPS			Displays low pressure. (*3)
MPS	—		Displays middle pressure. (*3)
—	4WV		Displays 4-way valve status.
—	SV1		Displays solenoid valve 1 status.
—	SV2		Displays solenoid valve 2 status.
—	SV3		Displays solenoid valve 3 status.
—	SV4	—	Displays solenoid valve 4 status.
—	SV5		Displays solenoid valve 5 status.
—	SV6		Displays solenoid valve 6 status.
—	SV7	—	Displays solenoid valve 7 status.
—	SV8	—	Displays solenoid valve 8 status.
CMP1			Displays compressor 1 status.
CMP2			Displays compressor 2 status.
CMP3	—		Displays compressor 3 status.

5. Web application

—		HPSW1	Displays high pressure switch 1
—		HPSW2	Displays high pressure switch 2
Fan			Displays the fan status.
EEV1			Displays electrical expansion valve 1 status.
EEV2			Displays electrical expansion valve 2 status.
EEV3		—	Displays electrical expansion valve 3 status.
—	Inverter CMP (Hz)	Inverter CMP (rps)	Displays drive frequency of inverter comp.
—	Inverter CMP (°C)		Displays IGBT temperature of inverter comp.
—	Inverter CMP (V)		Displays DC voltage of inverter comp.
—	Inverter CMP (A)		Displays CT current of inverter comp.
—		CT current	Displays CT current of costant rate comp.

- Page area
  Page will be displayed, if number of items to be displayed exceeds 1 page.
  (Refer to 5-14 Others screen (Display setting))

≤ & ≥	Page may be shifted back and forth every 10 page.
◄ & ►	Signifies that there are no more page.
Page No.	Displays data corresponding to the page.

Note *1 12-hour or 24-hour display. The display format depends on the setting at the data acquisition application.

*2 Units display is [°C] or [°F]. The display format depends on the setting at the data acquisition application.

*3 Units display is [Mpa] or [psi]. The display format depends on the setting at the data acquisition application.

    * For setting at the data acquisition application, refer to 4-3 Environment setting.

5. Web application

■Indoor unit

Display item

Page area

- Display item

S	V	VII	Description
Time			Displays the data acquisition time. (*1) For summer time, (S) is displayed.
Operation			Displays the operating status/unit status.
—		Special operation	Displays special operation.
Mode			Displays the operating mode. (Refer to 5-4-1 Name and function of each area.)
Set Temp			Displays the setting temperature. (*2)
THIA	TH21		Displays the room temperature. (*2)
THHI	TH22		Displays heat exchanger inlet temperature. (*2)
THHM	TH23	—	Displays the heat exchanger middle temperature. (*2)
THHO	—	TH24	Displays the heat exchanger outlet temperature. (*2)
THOA	—		Displays the outlet temperature. (*2)
EEV			Displays electrical expansion valve status.
MAX EEV	—		Displays maximum EEV value.
SVD	—		Displays discharge solenoid valve status.
SVS	—		Displays suction solenoid valve status.
SVB	—		Displays bypass solenoid valve status.
—	Fan		Displays fan volume.
—		V.T. Louver	Displays vertical fan position.
—		H.Z. Louver	Displays horizontal fan position.

- Page area
  Page will be displayed, if number of items to be displayed exceeds 1 page.
  (Refer to 5-14 Others screen (Display setting))

5. Web application

≤ & ≥	Page may be shifted back and forth every 10 page.
◄ & ►	Signifies that there are no more page.
Page No.	Displays data corresponding to the page.

<table>
<tr><td>Note
ℹ</td><td>*4</td><td>12-hour or 24-hour display. The display format depends on the setting at the data acquisition application.</td></tr>
<tr><td></td><td>*5</td><td>Units display is [°C] or [°F]. The display format depends on the setting at the data acquisition application.</td></tr>
<tr><td></td><td></td><td>* For setting at the data acquisition application, refer to 4-3 Environment setting.</td></tr>
</table>

■ List of icon for special operation

Outdoor unit

ICON	EXPLANATION
	Oil recovery operation
	Oil recovery operation ended
	Maintenance mode
	Emergency stop
	Outdoor unit stopped
	Defrost operation
	Defrost operation ended
	Night mode operation
	Power save operation

Indoor unit

ICON	EXPLANATION
	Freeze prevention operation
	Anti-freeze operation
	Anti-freeze setting
	Maintenance mode
	Master indoor unit
	Operation mode controlled by master outdoor unit
	Operation mode controlled by master indoor unit
	Emergency stop
	Energy save operation

5. Web application

5-8-2 Operation history specification
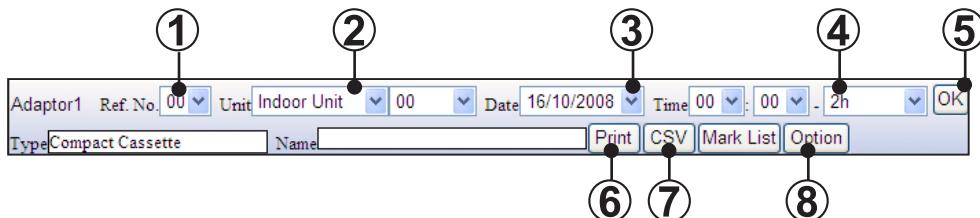
① Refrigerant system selection field
Specifies the refrigerant system No.

② Unit selection field
Switches the unit to be displayed. (Select from "Indoor Unit" / "Outdoor Unit".)

③ Date specification field
Specifies the date of the history data to be displayed.

④ Display time range specification field
Specifies the range of the history time to be displayed.

* By specifying "One day", the range will be 24 hours from the starting time. If range other than "One day" is specified, only data for that day (till midnight) will be displayed.

⑤ OK button
Displays the history by specified condition.

⑥ Print button
Prints the displayed data.

⑦ CSV button
Displays the CSV save widow.

⑧ Set whether Display item (column) should be displayed or hidden.
Items to be set in the option screen is as follows. When display items are set, they will be displayed right-wise.

Checked … display, Unchecked … hidden

Note
For Windows®XP SP2 and later versions,
in order to save CSV files, set Internet Explorer as follows;
from [Tool] menu, select [Pop-up Blocker], [Turn Off Pop-up Blocker]

5. Web application

5-8-3 Operation history printing

The operation history currently being displayed can be printed by clicking the Print button.

① Printer setup and printing
Click on the print tool icon on the right upper corner of the screen and select "Page Setup...".

In the Page Setup screen, select the size of the paper as "A3" and the Orientation as "Landscape" and press "OK". If other option is selected, the print may not come up as good.

5. Web application

Click on the print tool icon on the right upper corner of the screen again and select "Print..." to start printing.

② Close button
When the ☒ button is pressed. the print window closes.

Header

List

5. Web application

Printing contents
Header

Site	Displays the site name.
Adaptor	Displays the transmission adaptor name, refrigerant system No., and indoor unit No.
Type	Displays the unit type.
Date	Displays the date and time of the display list.

Max EEV	Displays the maximum of the electrical expansion valve of the relevant unit. (*1)
Current Date	Displays the current date.
Ref. No	Displays the refrigerant No.
Unit No	Displays the unit No.
Capacity	Displays the capacity. (Only for outdoor units)

List

List	Displays the operation history currently being displayed.

Note

i   *1   Only indoor unit of S series is displayed.

5. Web application

5-9   Error history screen

Displays the error information for each unit. The error information can sequentially display up to 50 items beginning from the newest error for each unit. This screen can also be printed and the error information can be saved in CSV format.

5-9-1 Name and function of each area

Control area

Display item

Control area

Device Section	Specifies the unit model. Select from "In/Outdoor Unit", "Peripheral Device".
Ref.No.	Specifies the refrigerant system No. (narrow down display)
Date	Specifies the date range to be displayed.
OK	Refreshes the display screen according to the specified conditions.
Request	Request for the latest error information of the specified unit. (Only VII series)
Clear	Clears all the error history data of the selected refrigerant system except for the existing errors.
Print	Prints the list currently displayed.
CSV	Saves the currently specified data to a CSV file.
PREV	Displays errors generated before the time displayed on the screen.
NEXT	Displays errors generated after the time displayed on the screen.
Unit Memory	Displays error names recorded in the indoor / outdoor units.

Display item

Model	Displays the unit model.
Address	Displays the address information (refrigerant system No./unit No.) of each unit.
Name	Displays the unit name. (*1)
Error1 ~ 50	Displays the error acquisition time and error contents. Displays currently generated errors in red.

> **Note** *1   Only when preset
> (Refer to 3-2-4 Name master database file selection screen.)

5. Web application

5-9-2 Error history display method
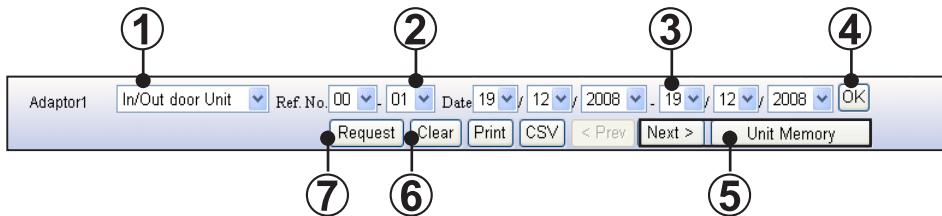
(1) Display unit model selection field
Selects the unit model.
For indoor unit/outdoor unit, select "In/Outdoor Unit" and for centralized   remote controller/transmission adaptor, select "Peripheral Device".

(2) Refrigerant system selection field
Specifies the range of the refrigerant system No. to be displayed. (*1)

(3) Date selection field
Selects the range of dates to be displayed. (*2)

(4) OK button
Refreshes the display data according to the selected conditions by clicking the OK button. (*3)

(5) Display item change button
The Next> button displays the next error. (Errors are displayed in groups of 5, such as when Error1~Error5 were displayed, Error6~Error10 are displayed.)
The <Prev button returns to the previous error.

(6) Clear button
Clear the error history data of the selected refrigerant system by pressing the Clear button.

(7) Request button
Request error history by clicking the Request button.

> **Note** *1 If the end refrigerant system No. is smaller than the start refrigerant system No., an error message is displayed.
>
> *2 If the end date is earlier date than the start date, an error message is displayed.
>
> *3 Displays only the units with an error history remaining.
> Troubleshooting screen (refer to 5-15) can be displayed by clicking the error contents of the display. However, excluding "TransmissionAdaptor" errors.

5. Web application

5-9-3　Error history printing

The currently displayed error history can be printed by clicking the Print button on the error history screen.

① Printer setup and printing
Click on the print tool icon on the right upper corner of the screen and select "Page Setup...".

In the Page Setup screen, select the size of the paper as "A3" and the Orientation as "Landscape" and press "OK". If other option is selected, the print may not come up as good.


Click on the print tool icon on the right upper corner of the screen again and select "Print..." to start printing.

5. Web application

② Close button
When the ✖ button is pressed. the print window closes.

Header

List display area

Printing contents
Header

Site	Displays the site name.
Adaptor	Displays the transmission adaptor name.
Ref No.	Displays the specified refrigerant system range.
Date	Displays the date range of the specified data.)
Current Date	Displays the current date.

List display area

List	Displays the error history list displayed on the screen.

5-9-4 Unit Memory

By pressing the [Unit Memory] button, the most recent error information recorded in the indoor / outdoor unit will be displayed. Using this screen, you can display the maximum of 20 error information of any specified indoor / outdoor unit.
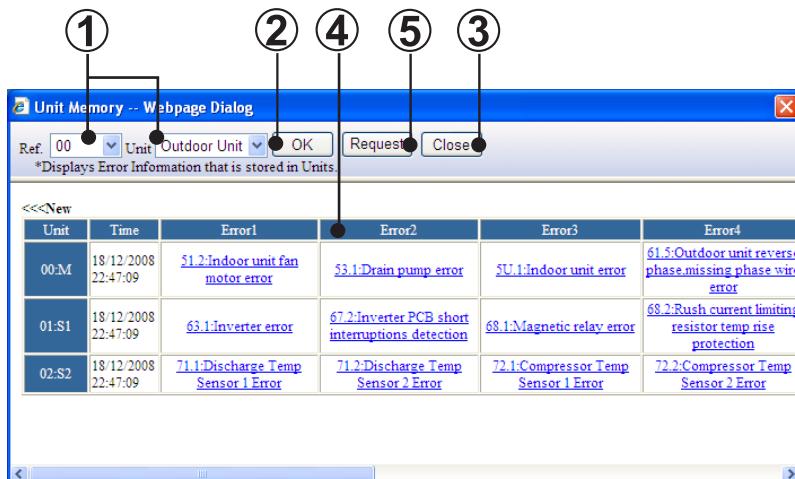
① Specify refrigerant system address and unit type whose error records are to be displayed. You may only specify unit for the refrigerant systems of V(Outdoor unit) and VII(Outdoor/Indoor unit) series.

② Error information for the refrigerant system address specified in **①** are displayed below.

③ Close this screen.

④ Display error information as described below.

Unit	Displays unit address.
Time	Displays the date & time when the error information was acquired from the unit.
Error n n=20 for V series n=10 for VII series	Error n displays error names acquired from the unit. When blank, no error exists. Errors will be sorted by time, [Error1] being the most recent error.

⑤ Request error history.
Error history may be acquired for any unit.

> **Note** ℹ
> • This is a supplementary screen to the Error History Screen. Use This screen to check errors not confirmed in the Error History Screen.
> • There are cases where the information in this screen and that of Error History Screen do not match. This is because of the differences in the information between the 2 screens.
>   a) Error History Screen displays errors real-time and the data may be deleted at will.
>   b) This screen displays errors recorded in the indoor / outdoor unit at one time.
> • Errors in this screen do not have information on dates.

5. Web application

5-9-5 Request Error History

By pressing the ⌊Request⌋ button, the most recent error information will be acquired for the specified units. The acquired information can be displayed as previously explained in "Error history display method" section. You may only use this function for VII series.
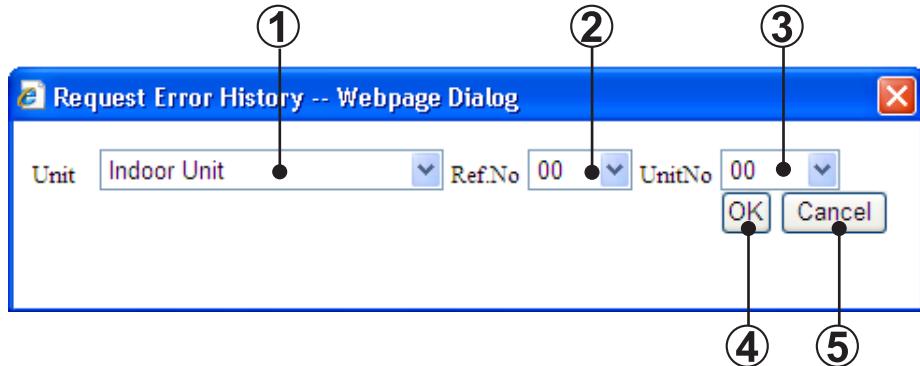
① Specify unit type whose error information is to be requested.

② Specify refrigerant system address whose error information to be requested.

③ Specify unit No. whose error information is to be requested.

④ Perform request.

⑤ Cancel request

Note Requesting error of particular unit using this screen may become necessary when immediately after connecting Service Tool to a system and you need the latest error information.

5-10 Control screen

Operation of each refrigerant system No., indoor unit No. or each R.C. Group can be controlled.
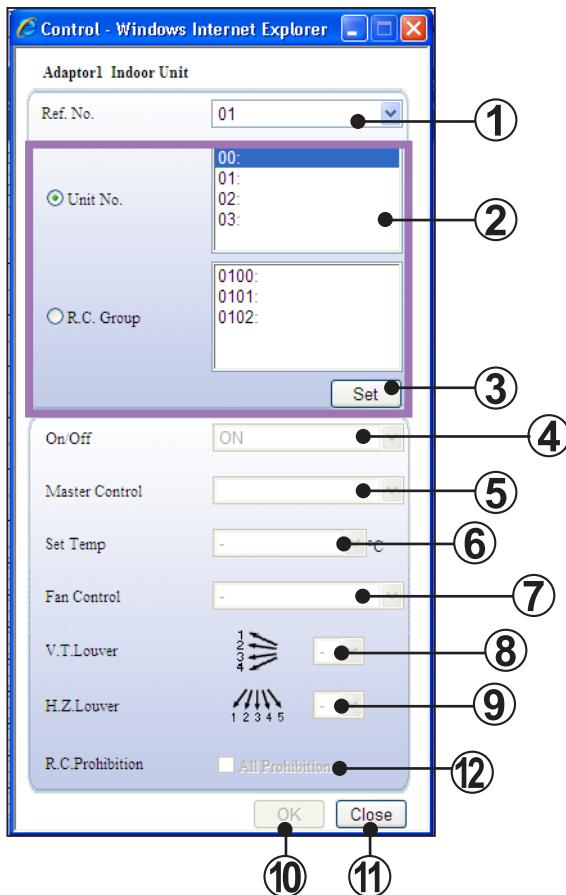
① Ref No. selection field
Selects the refrigerant system No. (The refrigerant system No. to be registered can be selected.)

② Control objective selection field
When specifying in unit units, select "Unit" and when specifying in R.C. Group units, select "R.C. Group". (Unit No and R.C. Group cannot be selected simultaneously.)

Multiple units can be selected by pressing "ctrl" key while selecting.

③ Set button
Fix the unit selection

④ On/Off selection field
Selects the operating status. (Select from On/OFF/On (Test).)

⑤ Master Control selection field
Selects the operating mode. (Select from Cool/Heat.)

⑥ Set Temp selection field
Selects the temperature. (*1)

5. Web application

⑦ Fan Control selection field
Selects the air flow. (Select from Auto/S-Low/Med/High.)

⑧ V. T. Louver
Select the vertical louver position.

⑨ H. Z. Louver
Select the horizontal louver position.

⑩ OK button
Controls operation according to the specified contents.

⑪ Close button
Closes the screen without taking any action.

⑫ R.C. Prohibition
Specify that all operation using remote controller will be prohibited. *2
Checked … Operation prohibited, Unchecked … Not prohibited.

Note *1 Displayed in Celsius or Fahrenheit depending on the data acquisition application setting.
The settable range depends on the series.

Mode	Series	Celsius	Fahrenheit
Cool	All	18~30°C	64~88°F
Heat	S	16~30°C	60~88°F
	V / VII	10~30°C	48~88°F

*2 When setting the R.C. Prohibition, be sure to release the prohibition afterward.

5. Web application

5-11 Others screen

Various setting may be performed and any existing data may be downloaded.
When the Others button is clicked from the main menu, the following Others menu is displayed at the bottom of the main menu.

Setting	User Registration, Change, Deletion/Set Request Interval
Download	Save/Download Data
Display setting	Set Auto-Refresh Interval/Set Number of History Data

Setting	Performs new user registration, user password change, registered user deletion, and demand interval setup. (Refer to 5-12 Others screen (Setting))
Download	Any unit data currently displayed can be saved. (Refer to 5-13 Others screen (Download))
Display setting	Setting Auto-refresh interval and maximum No. of lines per page. (Refer to 5-14 Others screen (Display setting))

5. Web application

5-12 Others screen (Setting)

Performs user registration, user password change, registered user deletion, and demand interval setup. When the Setting button is clicked from the Others screen, the following setting menu is displayed at the bottom of the main menu.

①   ②   ③   ④

| User Registration ● | User Change ● | User Deletion ● | Demand Interval Setup ● |
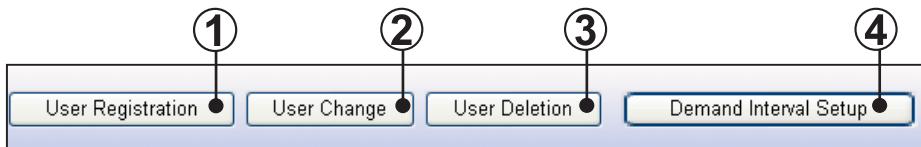
① User registration button
Shifts to the user registration screen.

② User change button
Shifts to the user change screen.

③ User deletion button
Shifts to the user deletion screen.

④ Demand interval setup button
Shifts to the demand interval setup screen.

5. Web application

5-12-1 User registration

Registers new user ID and password. A data acquisition application start user can be added.

$\textbf{①}$ User ID input field
Input the user ID. (Up to 20 alphanumeric characters) (*1)

$\textbf{②}$ Password input field
Input the password. (Up to 20 alphanumeric characters) (*1)

$\textbf{③}$ Password confirmation input field
For confirmation, input the password again. (Up to 20 alphanumeric characters) (*2)

$\textbf{④}$ OK button
Registers the inputted contents. (*3)

Note *1 If the user ID and password input fields are not inputted, an error message is
displayed.
*2 If there is a difference in the password and password confirmation input contents, an error message is displayed.
*3 If the same user ID is already registered, an error message is displayed.

5. Web application

5-12-2 User change

The password of a registered user can be changed.

(1) User ID selection field
Select the user to be changed.
The currently registered users can be displayed and selected with [▼].

(2) Password input field
Input the password of the user to be changed. (Up to 20 alphanumeric characters) (*1)

(3) New password input field
Input the password to be newly registered. (Up to 20 alphanumeric characters) (*1)

(4) New password confirmation input field
For confirmation, input the password again. Input the same password as the new password. (*2)

(5) OK button
Performs change processing according to the inputted contents. (*3)

Note *1 When the password and new password input fields are not inputted, an error message is displayed.

*2 When the contents input at the new password and new password confirmation input fields do not match, an error message is displayed.

*3 When the password of the selected user ID is incorrect, an error message is displayed.

5-12-3 User deletion

Deletes registered users.

① **User ID selection field**
Select the user to be deleted.
The currently registered users can be displayed and selected with ⌄ .

② **Password input field**
Input the password of the user to be deleted. (Up to 20 alphanumeric characters) (*1)

③ **OK button**
Deletes the selected user. (*2)

Note *1   When the password input field is not inputted, an error message is displayed.

ℹ   *2   When the selected user ID and password do not match, an error message is displayed.

5. Web application

5-12-4 Demand interval setup

Specifies the interval at which the temperature, pressure information, and electrical components operating status is specified for each unit in the VRF System. The refresh interval of the data displayed at the system list, operation history, and unit detail screens is changed by changing this setting. When the demand interval is set to a small value, the data refresh interval becomes shorter, but the data may be received correctly by an error. At this time, set this interval to a large value.
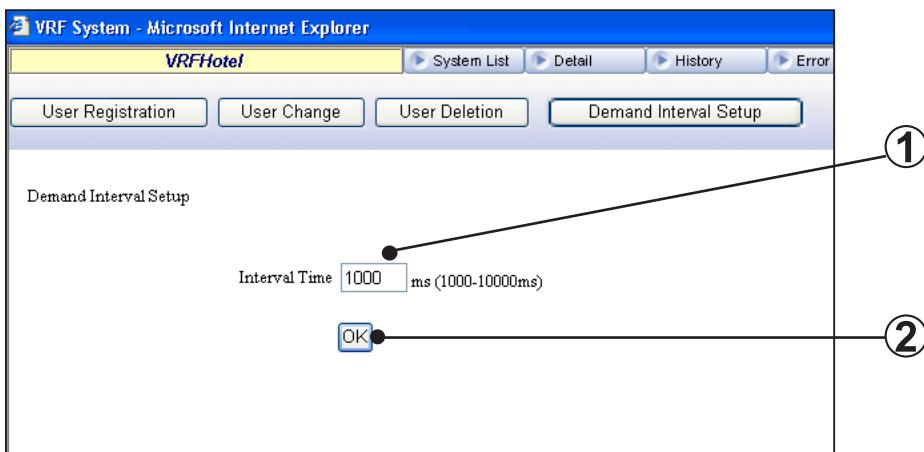
① Interval time input field
Set the demand interval time. (*1)

② OK button
Refreshes the demand interval time according to the inputted time.

Note *1 The currently set time is displayed by default. Only the numerics 1000 to 10000 (ms) can be inputted. When input is incorrect or there is no inputted, an error message is displayed.

5-13 Others screen (Download)

Any unit data currently displayed can be saved. The saved data may be displayed as offline data for Service Tool Ver. 1.0.
When the Download button is clicked from the Others screen, the following setting menu is displayed at the bottom of the main menu.

Control area

List display area
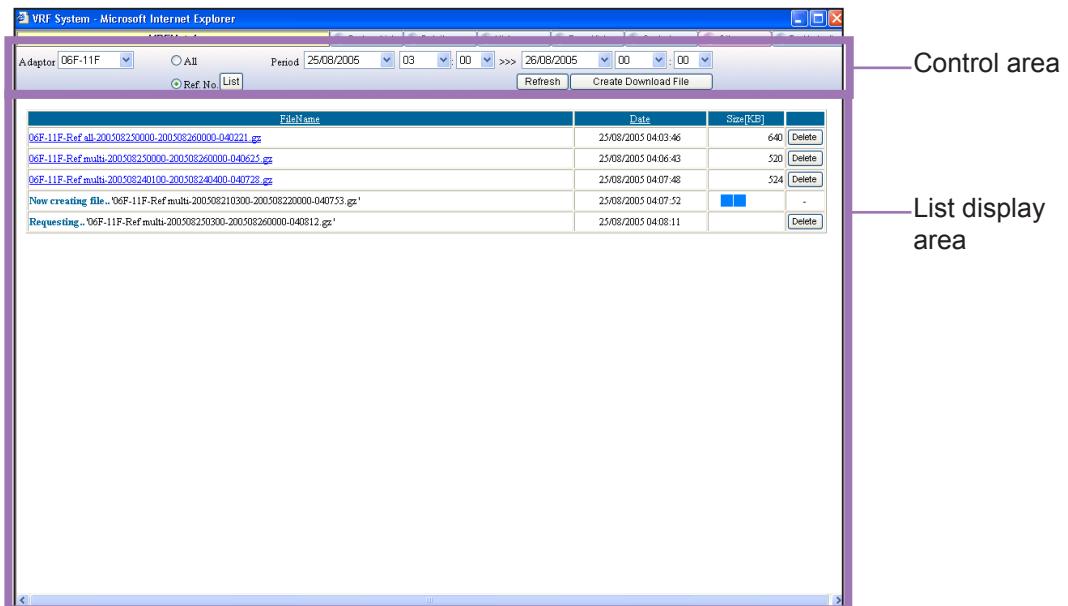
5-13-1 Name and function of each area

■Control area

Specify the conditions and creation of data file to be downloaded.

Adaptor	Displays the transmission adaptor name.
All & Ref.No.	Specify the refrigerant address of the data file.
Period	Specify the period of the data file.
Refresh	Update the contents of "List display area".
Create Download File	Create data files.

■List display area

Display the list of created data files. Also, any data files may be specified for download and/or deletion.

FileName	Display the file names created in the Control area. Also any data file may be downloaded.
Date	Display date of creation of the data files.
Size	Display the size (in KB) of the data files created. When creation is in progress, display the status of progress.
Delete	Delete any data file.

5. Web application

5-13-2 Procedures for Creating Download Files
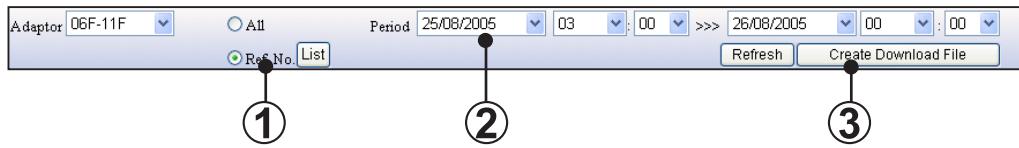
① All & Ref. No.
Specify the range of refrigerant system of the data files to be created by one of the following methods. If Ref. No. is specified, refrigerant address selection screen will be show up by pressing the List button. Specify the desired refrigerant address here.

- All .... All refrigerant addresses are specified.

- Ref. No .... Refrigerant address selected in the refrigerant address selection screen will be specified.

Ctrl + Click enables multiple choice.
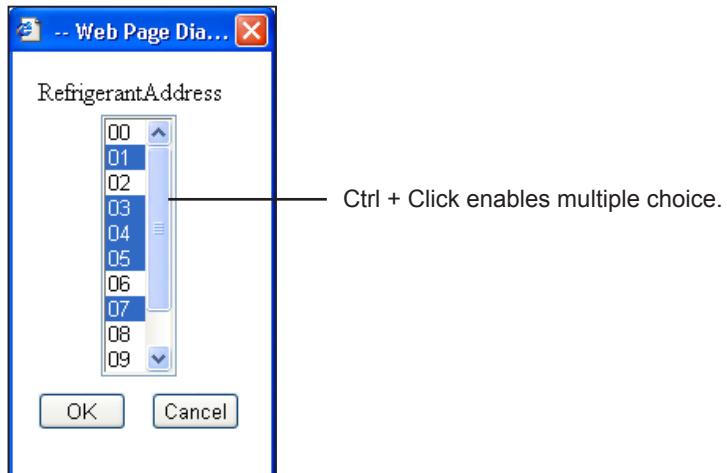
Refrigerant Address selection screen

② Period
Specify the period (Start >>> End) of the data file to be created by date and time.

③ Create Download File
Start creating data files using the condition specified by ①, ②. Creation progress may be checked with the FileName in the "List display area".

- FileName format is as follows;
  [Transmission adaptor name - Ref all or Ref multi *- Period - time]
  * Ref all … All / Ref multi … Ref.No.
- There 3 progress status.
  - Completed … Only File name (File name will be underlined)
  - Creating … Now creating file … File name
  - Waiting … Requesting … File name

5. Web application

5-13-3　Data file download/deletion

FileName	Date	Size[KB]	
06F-11F-Ref all-200508250000-200508260000-040221.gz	25/08/2005 04:03:46	640	Delete
06F-11F-Ref multi-200508250000-200508260000-040625.gz	25/08/2005 04:06:43	520	Delete
06F-11F-Ref multi-200508240100-200508240400-040728.gz	25/08/2005 04:07:48	524	Delete
Now creating file..'06F-11F-Ref multi-200508210300-200508220000-040753.gz'	25/08/2005 04:07:52	■■	-
Requesting..'06F-11F-Ref multi-200508250300-200508260000-040812.gz'	25/08/2005 04:08:11		Delete

①

②

①　Download
Click on the (underlined) file name that you want to download.

②　Delete
Click on the "Delete" button on the same line as the file name that you want to delete.

5. Web application

5-14 Others screen (Display setting)

Make display setting for the "Detail" screen and "Operation history" screen.
When the Display setting button is clicked from the Others screen, the following setting menu is displayed at the bottom of the main menu.
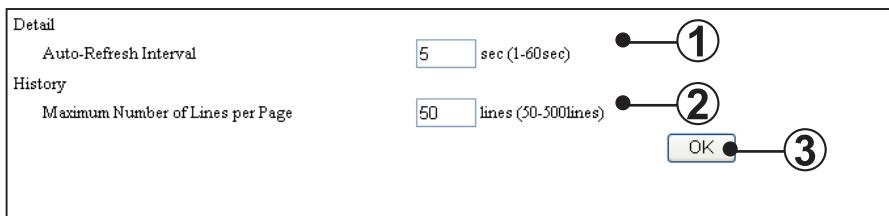
① Auto-Refresh Interval (*1)
Set "Detail" screen update interval. This defines not the screen update interval but interval for checking the existence of updated data. The check will be performed in this interval and if the data is updated, the screen display will be updated.

② Maximum number of Lines per Page (*1)
Defines the maximum number of data that can be displayed in a page of Operation history screen.

③ OK
Register the data set in ①, ②.

Note **i**   *1   Depending on the performance spec. of personal computer used, operation of this software may become slow. In such case, re-adjust the value set and check the operation.

5. Web application

5-15 Troubleshooting screen

Displays the error contents and corrective action. Display is performed from the main menu and error history screen.

5-15-1 Name and functions of each area
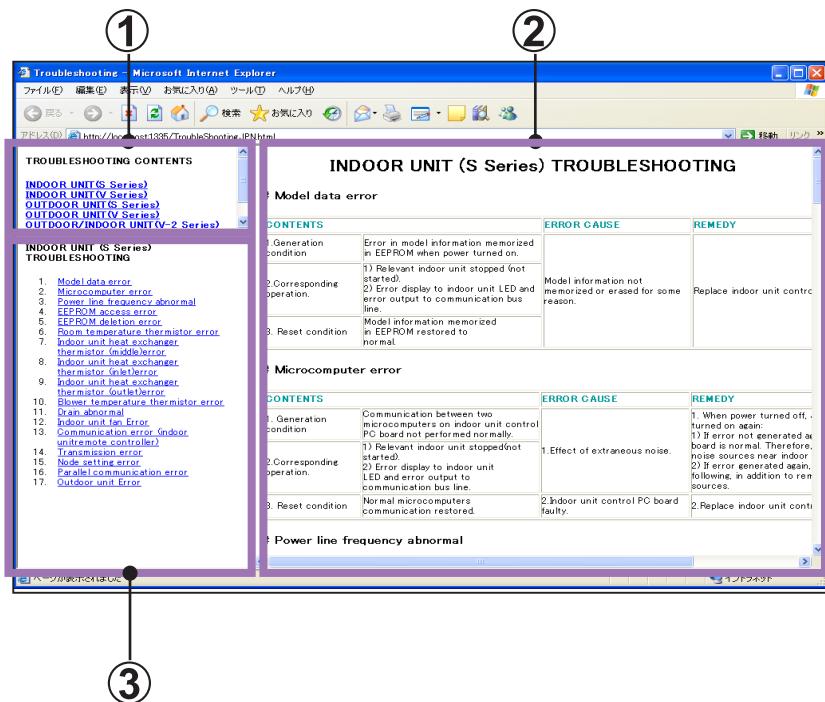
① Contents area by type
When contents are clicked, the contents of the error contents are displayed.

② Troubleshooting contents display area
Displays the error details.

For VII series, this area will be displayed full screen.

③ Contents area for each error contents
When contents are clicked, those contents are displayed.

This area will not be displayed for VII series.

Note ℹ️ When VII series is selected, trouble shooting section from service manual will be displayed. This will give you a precise and detailed instruction on trouble shooting.

5. Web application

5-16 When error generated

When the Service Tool (WEB application) cannot be used, the following screen is displayed.

5-16-1 Scanning other units

Displays when bus priority processing was generated at another unit (Touch Panel Controller, other System Controller). In this case, all operations which perform communication become impossible. When scanning ends, the display automatically returns to the processing screen and operation becomes possible.

① Message
The unit name being scanned is displayed.
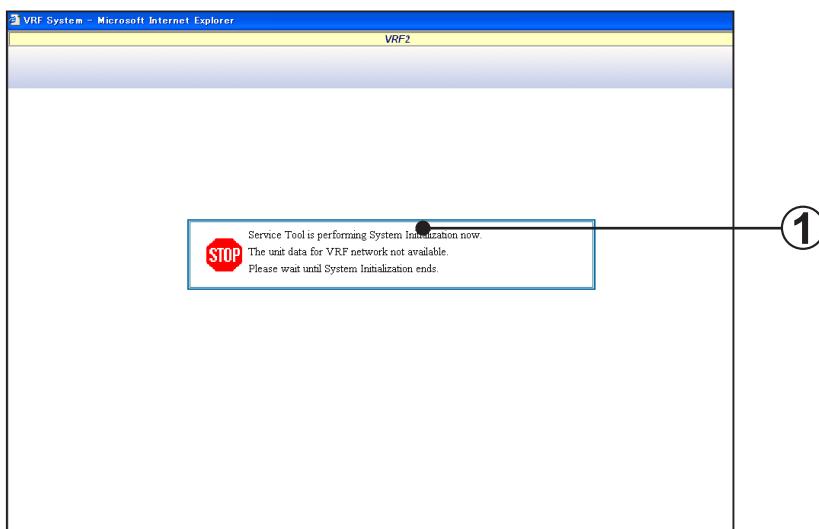
5-16-2 Data acquisition application shutdown

Displays when the data acquisition application is shut down. All operations are impossible. Start the data acquisition application.

Contents

6. Troubleshooting

6. Troubleshooting

When a problem occurred during operation, refer to this section. This section describes assumed problems and how to solve them.

T-1   A transmission adaptor connection error was generated.

> **Cause**
>
> ① Driver is not installed.
>
> ② Power is not supplied to the transmission adaptor.
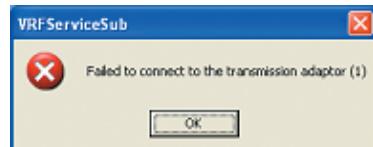
> **Countermeasure**
>
> ① To use this product, install necessary drivers/software for this product following the ***QUICK START*** enclosed with this product.
>
> ② Make sure that USB equipment (USB hub, etc.) that this product is connected to, is not overloaded (power supplied thru the interface does not exceeds the maximum limit).

T-2   Forms cannot be printed.

> **Cause**
>
> ① Printer power is not ON.
>
> ② Printer cable between PC and printer is not properly connected.
>
> ③ Printer driver is not correctly installed.

> **Countermeasure**
>
> ① Check if the printer power is ON.
>
> ② Check if the printer cable is connected.
>
> ③ Print forms by performing printing processing by Windows® setting. Refer to Windows® printing troubleshooting, and check whether or not the Windows® printer setting is correct.

T-3   "Master Abnormality." message was displayed by the browser.

> **Cause**
>
> There is an abnormality in the master data.

> **Countermeasure**
>
> The database backed up last time is automatically restored. This software can-

not be used until completion of restore processing. Since restore processing takes several minutes, wait a while before performing operation. The data backed up the previous time and subsequently is lost. After recovery, check the data.

T-4   "Can not control this transmission adaptor." message was displayed by the browser.

Cause

The system entered a state in which it cannot control operation because the name master data was not received.

Countermeasure

Wait until the Service Tool automatically acquires each name master data, and then scan by detailed information scanning setting. For details, refer to par. 3-2-5 Scanning.

T-5   "No data existing." message was displayed by the browser.

Cause

Data cannot be displayed because the unit data which is the display objective was not received.

Countermeasure

Wait until the Service Tool automatically acquires each unit data, and then set Intensive Data Acquisition (IDA) Mode at the system detail screen. For details, refer to par. 5-6-1 Name and function of each area.

T-6   "Server access error occurred." message was displayed by the browser.

Cause

① Error was generated when accessing the database.

② The database may have been stopped by some cause.

③ The database may have been destroyed.

④ PC memory is used up.

Countermeasure

① Close the browser and redo from log in.

② Restart the PC and then restart the Service Tool.

③ The database backed up last time is automatically restored. This software cannot be used until completion of restore processing. Since restore processing takes several minutes, wait a while before performing operation. The data backed up the previous time and subsequently is lost. After recovery, check the data.

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6. Troubleshooting

④ Close all applications and stop unnecessary services of the PC in order to free memory. Add extra memory if possible (refer "3-2 Recommended specs" of Setting Manual).

T-7　During scanning, PC power was dropped by a power failure or erroneous operation and operation became unstable.

Countermeasure

At a power failure, incomplete data remains and operation may be performed with this incomplete data at the next starting. Repeat scanning. When the power was interrupted during another operation, the operation may return to normal by the same operation after resetting.

T-8　Air conditioner is not controlled in R.C. group units.

Cause

R.C group data cannot be acquired.

Countermeasure

Repeat scanning by detailed information scanning setting.

T-9　Displayed text is garbled.

Cause

PC regional setting is incorrect.

Countermeasure

Set ** Setting Manual ** par. 6-1-1 Regional option to "English (United Kingdom)".

T-10　Template file for the Commissioning Report (CommissioningReport.xls) can't be opened.

Cause

Security level in Excel is set to "High".

Countermeasure

Start Excel, from the "Tool" menu;

Select [Tool], [Macro], [Security] then,

in the "Security Level" tab, set the level to "Medium" or "Low".

T-11　Pop-up window does not show up in the Service Tool screens. (Control screen, Commissioning tool, etc.)

Cause

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Pop-up Blocker is enabled in the Internet Explorer.

Countermeasure

① Open Internet Explorer → [Tools] → [Pop-up Blocker] and check [Turn Off Pop-up Blocker]

② If any of the search tool bar from various search engines (Yahoo, Google etc.) is installed, disable the Pop-up Blocker.
(For detail, refer the help of each toolbar.)

T-12   Refrigerant circuit diagram is not displayed for outdoor/indoor unit in the Detail screen (diagram).
(Message "Cannot display refrigerant circuit diagram" is displayed).

Cause

Model name was not acquired from indoor/outdoor unit (VII series only).

Countermeasure

① Perform scan again (Refer section 3-2-5 Scanning).
After scanning, check that the model name is displayed in the System List screen.

② If the name is not displayed in the System List screen, enter the correct model name for the unit in the Name master database file (Refer section 3-2-4) and select "re-scanning" from the right-circle menu in the task tray.
When requested for the Name master database file, specify the file, but the following scan may be cancelled.

Q-1   Can the Service Tool be restarted by installing it on the same PC as the System Controller or other Software tool and using the same transmission adaptor?

Answer

The Service Tool can be installed on the same PC, but simultaneous operation is outside the warranty. Also, each application cannot simultaneously share one transmission adaptor.

Q-2   Can a browser other than Internet Explorer be used?

Answer

Other browsers cannot be used because they are incompatible.

6. Troubleshooting